SONY

MIRROR MOTHER VTR

# MMV800/800-A
# MMV810/810-A
# MMV802/802-A

SPRINTER

MAINTENANCE MANUAL

1st Edition

**For the customers in the U.S.A.**

**WARNING**

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for Class A computing devices pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

**For the customers in Canada**

This apparatus complies with the Class A limits for radio noise emissions set out in Radio Interference Regulations.

**Pour les utilisateurs au Canada**

Cet appareil est conforme aux normes Classe A pour bruits radioélectriques, spécifiés dans le Règlement sur le brouillage radioélectrique.

このマニュアルに記載されている事柄の著作権は当社にあり、説明内容は機器購入者の使用を目的としています。
従って，当社の許可なしに無断で複写したり，説明内容(操作，保守等)と異なる目的で本マニュアルを使用することを禁止します。

The material contained in this manual consists of information that is the property of Sony Corporation and is intended solely for use by the purchasers of the equipment described in this manual.
Sony Corporation expressly prohibits the duplication of any portion of this manual or the use thereof for any purpose other than the operation or maintenance of the equipment described in this manual without the express written permission of Sony Corporation.

Le matériel contenu dans ce manuel consiste en informations qui sont la propriété de Sony Corporation et sont destinées exclusivement à l'usage des acquéreurs de l'équipement décrit dans ce manuel.
Sony Corporation interdit formellement la copie de quelque partie que ce soit de ce manuel ou son emploi pour tout autre but que des opérations ou entretiens de l'équipement à moins d'une permission écrite de Sony Corporation.

Das in dieser Anleitung enthaltene Material besteht aus informationen, die Eigentum der Sony Corporation sind, und ausschließlich zum Gebrauch durch den Käufer der in dieser Anleitung beschriebenen Ausrüstung bestimmt sind.
Die Sony Corporation untersagt ausdrücklich die Vervielfältigung jeglicher Teile dieser Anleitung oder den Gebrauch derselben für irgendeinen anderen Zweck als die Bedienung oder Wartung der in dieser Anleitung beschriebenen Ausrüstung ohne ausdrückliche schriftliche Erlaubnis der Sony Corporation.

# TABLE OF CONTENTS


## 1. SERVICE INFORMATION

1-1. Main Parts Location ..... 1-1
1-1-1. Tape Transport ..... 1-1
1-1-2. Location of Printed Circuit Boards (1) ..... 1-3
1-1-3. Location of Printed Circuit Boards (2) ..... 1-5
1-1-4. Power Supply, Connector Panel ..... 1-8
1-2. Removal of Cabinet ..... 1-9
1-2-1. Removal pf Front Panel ..... 1-9
1-2-2. Rear Panel Removal and Opening the Upper Lid ..... 1-10
1-3. Periodic Maintenance ..... 1-11
1-3-1. Periodical Maintenance Table ..... 1-11

## 2. PRECAUTIONS OF THE POWER SUPPLY UNIT

## 3. FIXTURES AND TOOLS

3-1. Fixtures and Tools ..... 3-1

## 4. MAIN PARTS REPLACEMENT

4-1. Video Drum Assembly Replacement ..... 4-1
4-1-1. Removal ..... 4-1
4-1-2. Installation ..... 4-1
4-2. Rotary Drum assembly Replacement ..... 4-2
4-2-1. Removal ..... 4-2
4-2-2. Installation ..... 4-3
4-3. Drum Ornamental Cover Installation ..... 4-5
4-4. Reel Motor Replacement ..... 4-6
4-4-1. S-reel Motor Replacement ..... 4-6
4-4-1-1. Removal ..... 4-6
4-4-1-2. Installlation ..... 4-6
4-4-2. T-reel Motor Replacement ..... 4-7
4-4-2-1. Removal ..... 4-7
4-4-2-2. Installation ..... 4-7
4-5. Brake band Replacement ..... 4-8
4-5-1. Brake Band Removal ..... 4-8
4-5-2. Brake Band Installation ..... 4-8
4-5-3. Stopper Plate Position Adjustment ..... 4-8
4-5-4. S-reel Brake Torque Adjustment ..... 4-9
4-5-5. T-reel Brake Torque Adjustment ..... 4-10
4-6. Brake Solenoid Replacement ..... 4-11
4-6-1. Brake Solenoid Removal ..... 4-11
4-6-2. Brake Soleniod Installation ..... 4-11
4-7. Tension Regulator Arm Replacement ..... 4-12
4-7-1. S-tension Regulator Arm Replacement ..... 4-12
4-7-1-1. Removal ..... 4-12
4-7-1-2. Installation ..... 4-12
4-7-2. T-tension Regulator Arm Replacement ..... 4-13
4-7-2-1. Removal ..... 4-13
4-7-2-2. Installation ..... 4-13
4-8. Capstan Motor Replacement ..... 4-13
4-8-1. Capstan Motor Removal ..... 4-13
4-8-2. Capstan Motor Installation ..... 4-13
4-9. Impedance Roller Housing Replacement ..... 4-14
4-9-1. Impedance Roller Housing Removal ..... 4-14
4-9-2. Impedance Roller Housing Installation ..... 4-14
4-10. Pinch Roller Replacement ..... 4-15
4-10-1. Pinch Roller Removal ..... 4-15
4-10-2. Pinch Roller Installation ..... 4-15
4-10-3. Pinch Roller Pressure Adjustment ..... 4-15
4-11. Pinch Block Replacement ..... 4-16
4-11-1. Pinch Solenoid Removal ..... 4-16
4-11-2. Pinch Soleniod Installation ..... 4-16
4-11-3. Pinch Soleniod Clearance Adjustment ..... 4-16
4-11-4. Pinch Pressure Adjustment ..... 4-16
4-11-5. Pinch Shift Motor Removal ..... 4-17
4-11-6. Pinch Shift Motor Installation ..... 4-17
4-11-7. Pinch Shift Timing Adjustment ..... 4-17
4-12. ACC Head Replacement ..... 4-18
4-12-1. ACC Head Assembly Removal ..... 4-18
4-12-2. ACC Head Assembly Installation ..... 4-18
4-12-3. ACC Head Removal ..... 4-19
4-13. Erase Head Replacement ..... 4-21
4-14. T-reel Table Replacement ..... 4-22
4-14-1. T-reel Table Replacement ..... 4-22
4-14-2. T-reel Table Adjustment ..... 4-22
4-15. Cleaning Blade Replacement ..... 4-23
4-15-1. Tape Cleaner Assembly Replacement ..... 4-23

## 5. PREPARATION FOR ADJUSTMENT

5-1. Equipment Required ..... 5-1
5-2. Electrical Adjustment Board (VP-106) ..... 5-1
5-3. Adjustment Procedure ..... 5-2
5-4. Power Supply Block Checks ..... 5-3

## 6. SYSTEM CONTROL CHECKS

6-1. Power on Check ..... 6-1
6-2. Remote Control Clock Adjustment ..... 6-1
6-3. System Controller Timing Chart ..... 6-1
6-3-1. Manual Operation Timing Chart ..... 6-1
6-3-2. Automatic Recording Timing Chart ..... 6-2
6-3-3. BVH Remote Controller Timing Chart ..... 6-3
6-3-4. MMV Remote Controller Timing Chart ..... 6-3

## 7. SERVO SYSTEM ADJUSTMENT

7-1. Servo System Adjustment Procedure ..... 7-1
7-2. DRV Board Adjustment ..... 7-2
7-2-1. Tape Sensor Operation Check ..... 7-2
7-2-2. Counter Roller FG Check ..... 7-2
7-2-3. Reel Motor Driver Offset Adjustment ..... 7-2
7-3. DSV Board Adjustment ..... 7-2
7-3-1. Input Signal Check ..... 7-2
7-3-2. FIX Speed Adjustment ..... 7-2
7-3-3. 1/2 VD Check ..... 7-3
7-3-4. Free Speed Adjustment ..... 7-3
7-3-5. RF Switching Pulse Adjustment ..... 7-3
7-3-6. REC Switching Pulse Adjustment ..... 7-4
7-3-7. RF Switching Pulse Timing Check ..... 7-4
7-3-8. AFM REC Switching Pulse-1 Adjustment ..... 7-4
7-3-9. AFM REC Switching Pulse-2 Adjustment ..... 7-5
7-3-10. AFM RF Switching Pulse Adjustment ..... 7-5
7-4. CSV Board Adjustment ..... 7-6
7-4-1. Input Signal Check ..... 7-6
7-4-2. Reference Voltage Adjustment ..... 7-6
7-4-3. FG Output Check ..... 7-6
7-4-4. Speed Loop Adjustment ..... 7-6
7-4-5. Offset Current Adjustment ..... 7-7
7-4-7. Servo Lock Check and Readjustment ..... 7-7

7-4-8. Capstan Alarm Adjustment ..... 7-7
7-4-9. REC CTL Adjustment ..... 7-8
7-4-10. Bias Trap Adjustment (BIAS Board) ..... 7-8
7-4-11. REC CTL Recording Current Check ..... 7-8
7-4-12. Tracking Control OFF Center Adjustment .... 7-8
7-4-13. Tracking Control ON Center Adjustment ..... 7-8
7-4-14. PB CTL Check ..... 7-9
7-4-15. Tape Speed Adjustment ..... 7-9
7-5. RSV Board Adjustment ..... 7-9
7-5-1. Reference Voltage Adjustment ..... 7-9
7-5-2. Potentionmeter Polarity Check ..... 7-9
7-5-3. Error Amplifier Adjustment ..... 7-9
7-5-4. Tension Alarm Adjustment ..... 7-10
7-5-5. Take-up Tension Offset Adjustment ..... 7-10
7-5-6. Supply Tension Offset Adjustment ..... 7-10
7-5-7. Take-up Tension Limiter Adjustment ..... 7-10
7-5-8. Supply Tension Limiter Adjustment ..... 7-10
7-5-9. Output Amplifier Offset Adjustment ..... 7-10
7-5-10. Reel FG Check ..... 7-10
7-5-11. Reel Rotationg Direction Check ..... 7-11
7-5-12. Speed Servo Chech ..... 7-11
7-5-13. FF/REW Servo Check ..... 7-11
7-5-14. Reel Stop Detector Adjustment ..... 7-11
7-5-15. FWD Tension Adjustment ..... 7-11
7-5-16. FF/REW Back Tension Adjustment ..... 7-11
7-5-17. FF/REW Rise Time Check ..... 7-11

## 8. VIDEO SYSTEM ALIGNMENT: MMV800/810

8-1. Alignment Procedure ..... 8-1
8-2. Preparation Before Adjustment ..... 8-2
8-2-1. Switch Settings ..... 8-2
8-2-2. Input Signal Check: SEP-MM01(YCS) Board ... 8-2
8-3. SEP-MM01(YCS) Board ..... 8-2
8-3-1. AGC Level Check ..... 8-2
8-3-2. A/DInput Level Check ..... 8-2
8-3-3. DC Level Check ..... 8-2
8-3-4. Burst Gate Pulse Check ..... 8-3
8-3-5. V Pulse Check ..... 8-3
8-4. YM-MM01(YMD) Board ..... 8-3
8-4-1. Modulator Input Level Check (1) ..... 8-3
8-4-2. Modulator Input Level Check (2) ..... 8-3
8-4-3. FM Carrier/Deviation Check ..... 8-3
8-4-4. Clip Level Check ..... 8-3
8-5. CM-MM01(CMD) Board ..... 8-4
8-5-1. DG Compensator Balance Check ..... 8-4
8-5-2. Chroma Output Level Check ..... 8-4
8-6. YD-MM01(YDE) Board ..... 8-4
8-6-1. APL Level Check ..... 8-4
8-6-2. Video Output Level Check ..... 8-4
8-7. CD-MM01(CDE) Board ..... 8-5
8-7-1. PB SC Check ..... 8-5
8-7-2. PB Chroma Level Check ..... 8-5
8-8. ADE Board ..... 8-5
8-8-1. PB AFM Level Check (ADE Board) ..... 8-5
8-9. Hi-Fi Mode REC Current Check ..... 8-6
8-9-1. REC FM Level Check (RFE Board) ..... 8-6
8-9-2. REC Chroma Level Check:
CD-MM01(CDE) Board ..... 8-6
8-10. Normal Mode REC Current Check ..... 8-7
8-10-1. REC FM Check: EQ-MM01(RFE) Board ..... 8-7
8-10-2. REC Chroma Check: EQ-MM01(RFE) Board .... 8-7
8-11. Y/C Overall Check ..... 8-7
8-11-1. PB Y/C Delay Check ..... 8-7
8-11-2. REC Y/C Delay Check ..... 8-7
8-11-3. E-E Y/C Delay Check ..... 8-8
8-11-4. Burst Lwvel check: YD-MM01(YDE) Board .. 8-8
8-11-5. HUE Check: CM-MM01(CMD) Board ..... 8-8

## 8. VIDEO SYSTEM ALIGNMENT FOR MMV802

8-1. Alignment Procedure ..... 8-1
8-2. Preparation Before Adjustment ..... 8-2
8-2-1. Switch Settings ..... 8-2
8-2-2. Input Signal Check ..... 8-2
8-3. YCS Board ..... 8-2
8-3-1. AGC Level Check ..... 8-2
8-3-2. A/DInput Level Check ..... 8-2
8-3-3. DC Level Check ..... 8-2
8-3-4. Burst Gate Pulse Check ..... 8-3
8-3-5. V Pulse Check ..... 8-3
8-4. YMD Board ..... 8-3
8-4-1. Modulator Input Level Check (1) ..... 8-3
8-4-2. Modulator Input Level Check (2) ..... 8-3
8-4-3. FM Carrier/Deviation Check ..... 8-3
8-4-4. Clip Level Check ..... 8-3
8-5. CMD (PAL) Board ..... 8-4
8-5-1. DG Compensator Balance Check ..... 8-4
8-5-2. Chroma Output Level Check ..... 8-4
8-6. CMD (SECAM) Board ..... 8-4
8-6-1. Delayed Sync Timing Adjustment ..... 8-4
8-6-2. Rec EQ Adjustment ..... 8-5
8-6-3. Limiter Adjustment ..... 8-5
8-6-4. Chroma Level Adjustment ..... 8-5
8-6-5. Bel Filter Adjustment ..... 8-5
8-6-6. Chroma Level Adjustment ..... 8-5
8-6-7. Chroma Output Level Adjustment ..... 8-5
8-7. YDE Board ..... 8-6
8-7-1. APL Level Check ..... 8-6
8-7-2. Video Output Level Check ..... 8-6
8-7-3. SECAM Level Check ..... 8-6
8-8. CDE Board ..... 8-6
8-8-1. PB SC Check ..... 8-6
8-8-2. Delay Sync Adjustment ..... 8-6
8-8-3. Bell Filter Adjustment ..... 8-7
8-8-4. Demodulated Chroma Output Adjustment .... 8-7
8-8-5. PB Chroma Level Check ..... 8-7
8-9. ADE Board ..... 8-7
8-9-1. PB AFM Level Check ..... 8-7
8-10. Hi-Fi Mode REC. Current Adjustment ..... 8-8
8-10-1. REC FM Level Check (RFE Board) ..... 8-8
8-10-2. REC Chroma Level Check (CDE Board) ..... 8-8
8-11. Normal Mode REC. Current Check ..... 8-9
8-11-1. REC FM Check (RFE Board) ..... 8-9
8-11-2. REC Chroma Check (RFE Board) ..... 8-9
8-12. Y/C Overall Check ..... 8-9
8-12-1. PB Y/C Delay Check ..... 8-9
8-12-2. REC Y/C Delay Check ..... 8-9
8-12-3. E-E Y/C Delay Check ..... 8-10
8-12-4. Burst Lwvel check (YDE Board) ..... 8-10
8-12-5. HUE Check (CMD Board) ..... 8-10

## 9. AUDIO SYSTEM ADJUSTMENTS


9-1. Bias System Adjustment (BIAS Board) ..... 9-1
9-1-1. Bias Oscillator Level Adjustment ..... 9-2
9-1-2. Erase Oscillator Level Adjustment ..... 9-2
9-1-3. Erase Level Adjustment ..... 9-2
9-1-4. Cue Oscillator Frequency Adjustment ..... 9-2
9-1-5. Cue Recording Level Adjustment ..... 9-2
9-1-6. Cue Bias Adjustment ..... 9-2
9-1-7. Cue Recording Bias Trap Adjustment ..... 9-3
9-1-8. Cue Playback Level Check ..... 9-3
9-1-9. Audio Bias Level Adjustment ..... 9-3
9-1-10. Audio Bias Trap Adjustment ..... 9-3
9-1-11. CTL Bias Level Adjustment ..... 9-3
9-1-12. CTL Bias Trap Adjustment ..... 9-3
9-2. Audio Input System Adjustment ..... 9-4
9-2-1. Line Input Check (RP Board) ..... 9-4
9-2-2. Line Input Level Adjustment (VR Board) ..... 9-4
9-3. Normal Audio System Adjustment ..... 9-4
9-3-1. Input Amplifier adjustment (AUD Board) ..... 9-4
9-3-2. Meter Amplifier Adjustment (AUD Board) ..... 9-4
9-3-3. AGC Level Adjustment (AUD Board) ..... 9-4
9-3-4. AGC Amplifier Adjustment (AUD Board) ..... 9-4
9-3-5. AGC Operation Check (AUD Board) ..... 9-5
9-3-6. Line Output Level Adjustment (AUD Board) ..... 9-5
9-3-7. Playback Equalier Adjustment (AUD Board) .... 9-5
9-3-8. Playback Gain Adjustment (AUD Board) ..... 9-5
9-3-9. Bias Trap Adjustment (BIAS Board) ..... 9-5
9-3-10. Bias Setting (AUD Board) ..... 9-5
9-3-11. Bias Level Check (AUD Board) ..... 9-6
9-3-12. Recording Level and Frequency Response Adjustment (AUD Board) ..... 9-6
9-3-13. Copy Level Adjustment (AUD Board) ..... 9-7
9-3-14. Audio Recording System Mid and High Frequency Responce Final Adjustment (AUD Board) ..... 9-7
9-3-15. Playback Output adjustment (AUD Board) ... 9-7
9-4. Hi-Fi Audio System Adjustment ..... 9-8
9-4-1. Preparation Before Adjustment ..... 9-8
9-4-2. dbx Sessitivity Adjustment (AMD Board) ..... 9-8
9-4-3. FM Carrier Center Frequency Adjustment (AMD Board) ..... 9-8
9-4-4. dbx Input Level Adjustment (AMD Board) .... 9-8
9-4-5. E-E RF Output Check (ADE Board) ..... 9-8
9-4-6. FM Carrier Check (ADE Board) ..... 9-8
9-4-7. dbx Sensitivity Adjustment (ADE Board) ..... 9-8
9-4-8. Playback sensitivity Adjustment (ADE Board)... 9-8
9-4-9. FM Deviation adjustment (AMD Board) ..... 9-9
9-4-10. FM Limiter adjustment (AMD Board) ..... 9-9
9-4-11. Carrier Mixing Adjustment (AMD Board) ..... 9-9
9-4-12. Recording Current Adjustment (AMD Board) ... 9-9
9-4-13. PB AFM Level Adjustment (ADE Board) ..... 9-9
9-4-14. Hi-Fi Mode Recording Current Adjustment (RFE Board) ..... 9-10
9-4-15. E-E RF Output Check (ADE Board) ..... 9-10
9-4-16. FM Carrier Check (ADE Board) ..... 9-10
9-4-17. dbx Sensitivity Adjustment (ADE Board) ..... 9-10
9-4-18. Playback Sensitivity Adjustment (ADE Board) .. 9-10
9-4-19. line Output Level Adjustment (ADE Board) .. 9-11
9-4-20. Meter Amplifier Adjustment (ADE Board) ..... 9-11
9-4-21. PB RF Output Balance Adjustment (APR Board) ..... 9-11
9-4-22. PB AFM Level Adjustment (ADE Board) ..... 9-11
9-4-23. DOC Level Adjustment (ADE Board) ..... 9-11
9-4-24. Carrier Detector Check (ADE Board) ..... 9-12
9-4-25. Recording Current Adjustment (AMD Board) ... 9-12
9-4-26. PB AFM Level Adjustment (ADE Board) ..... 9-12
9-4-27. PB RF Output Balance Adjustment (APR Board) ..... 9-12
9-4-28. AFM Noise Canceler Adjustment (AMD Board) ... 9-12


## 10. TAPE PATH SYSTEM ADJUSTMENT FLOWCHART

## 11. TAPE PATH SYSTEM ADJUSTMENTS AFTER PARTS REPLACEMENT


11-1. Tape Path Adjustment after Replacing the Video Drum and Rotary Drum Assembly ..... 11-1
11-1-1. Pairing and Diheidral Checking ..... 11-3
11-1-2. Pairing Adjustment ..... 11-3
11-1-3. Tracking Checks ..... 11-5
11-1-5. Tracking Adjustment ..... 11-5
11-1-6. Absolute CTL Position Check ..... 11-9
11-1-7. Absolute CTL Position Adjustment ..... 11-10
11-1-8. CTL Position Check ..... 11-10
11-1-10. ACC Head Azimuth Check ..... 11-11
11-1-11. ACC Head Height Adjustment ..... 11-11
11-1-12. ACC Head Azimuth Adjustment ..... 11-12
11-1-13. Securing the ACC Head Azimuth Fixing Screw .. 11-13
11-1-14. Locking the Screws ..... 11-13
11-2. Tape Path Adjustment After Replacing Reel Motor and Tension Requlating Arm ..... 11-14
11-2-1. FWD Back Tension Check ..... 11-14
11-2-2. FWD Back Tension Adjustment ..... 11-14
11-2-3. FWD Tack-up Tension Check ..... 11-14
11-2-4. FWD Tack-up Tension Adjustment ..... 11-15
11-2-5. FF Back Tension Check ..... 11-15
11-2-6. FF Back Tension Adjustment ..... 11-15
11-2-7. REW Back Tension check ..... 11-15
11-2-8. REW Back Tension Adjustment ..... 11-15
11-3. Tape Path Adjustment After Replacing Capstan Motor ..... 11-17
11-3-1. Pinch Pressure Check ..... 11-17
11-4. Tape Path Adjustment After Impedance Roller Housing Replacement ..... 11-19
11-5. Tape Path Adjustment After Pinch Roller and Pinch Solenoid Replacement ..... 11-20
11-6. Tape Path Adjustment After ACC Head Replacement 11-21
11-6-1. Monitor Head Azimuth Check ..... 11-21
11-6-2. Monitor Head Height Adjustment ..... 11-21
11-5-3. Monitor Head Azimuth Adjustment ..... 11-22
11-7. Tape Path Adjustment After Replacing Erase Head ..... 11-23
11-7-1. Tape Path Check ..... 11-23
11-7-2. Erase Operational Check ..... 11-23

## 12. BLOCK DIAGRAMS


Overall: MMV800/810 ..... 12-1
Overall: MMV802 ..... 12-2
Power Supply System ..... 12-3
Control Signal System ..... 12-4
SYC Board ..... 12-5
SYI Board ..... 12-6
KBD Board ..... 12-7
Servo Signal System ..... 12-8
RSV Board ..... 12-9
CSV Board ..... 12-10
DSV Board ..... 12-11
Video Signal System :MMV800/810 ..... 12-12
Video Signal System :MMV802 ..... 12-14
SEP-MM01(YCS) Board :MMV800/810 ..... 12-16
SEP-MM02(YCS) Board :MMV802 ..... 12-17
YM-MM01(YMD) Board :MMV800/810 ..... 12-18
YM-MM01(YMD) Board :MMV802 ..... 12-19
CM-MM01(CMD) Board :MMV800/810 ..... 12-20
CM-MM02(CMD) Board (PAL) :MMV802 ..... 12-21
CM-MM03(CMD) Board (SECAM) :MMV802 ..... 12-22
YD-MM01(YDE) Board :MMV800/810 ..... 12-23
YD-MM01(YDE) Board :MMV802 ..... 12-24
CD-MM01(CDE) Board :MMV800/810 ..... 12-25
CD-MM01(CDE) Board :MMV802 ..... 12-26
EQ-MM01(RFE) Board ..... 12-27
Audio Signal System ..... 12-28
AUL/AUR Board ..... 12-30
BIAS Board ..... 12-31
FM Audio Signal System ..... 12-32
AMD Board ..... 12-32
ADE Board ..... 12-33
APR Board ..... 12-34


## 13. SEMICONDUCTOR PIN ASSIGNMENTS

## 14. SCHEMATIC DIAGRAMS


Overall Frame Wiring ..... 14-1
Power Supply Frame Wiring ..... 14-2
HM-2 Board ..... 14-3
Connector Panel Frame Wiring ..... 14-5
RP Board ..... 14-6
RS Board (for MMV800-A and MMV810-A) ..... 14-8
SYC Board ..... 14-9
SYI Board ..... 14-10
RSV Board ..... 14-11
CSV Board ..... 14-12
DSV Board ..... 14-13
SEP-MM01(YCS) Board :MMV800/810 ..... 14-14
SEP-MM02(YCS) Board :MMV802 ..... 14-18
CD-MM01(CDE) Board :MMV800/810 ..... 14-22
CD-MM02(CDE) Board :MMV802 ..... 14-24
YD-MM01(YDE) Board :MMV800/810 ..... 14-27
YD-MM01(YDE) Board :MMV802 ..... 14-31
CM-MM01(CMD) Board :MMV800/810 ..... 14-34
CM-MM02(CMD) Board (PAL) :MMV802 ..... 14-38
CM-MM03(CMD) Board (SECAM) :MMV802 ..... 14-41
YM-MM01(YMD) Board :MMV800/810 ..... 14-43
YM-MM01(YMD) Board :MMV802 ..... 14-47
EQ-MM01(RFE) Board :MMV800/810 ..... 14-50
EQ-MM01(RFE) Board :MMV802 ..... 14-54
AMD Board ..... 14-57
ADE Board ..... 14-58
AUD(L)/AUD(R) Board ..... 14-59
MB-MM01(MBD) Board ..... 14-60
Meter Panel Frame Wiring ..... 14-65
VR Board ..... 14-66
LED-1/2, NA-SW, RL-SW, MS-SW Board ..... 14-67
Control Panel Frame Wiring ..... 14-68
KBD Board (1-613-810-11) ..... 14-69
KBD Board (1-647-380-12) ..... 14-70
Tape Transport Frame Wiring ..... 14-71
DRV Board ..... 14-72
PJ-1, PSS, RJ, CR Board ..... 14-73
TS-1/2 Board ..... 14-74
Recording, Playback Frame Wiring ..... 14-75
RA-MM01(RA) Board ..... 14-76
VP-MM01(PB) Board ..... 14-78
APR Board ..... 14-79
BIAS Board ..... 14-80


## 15. PARTS LIST

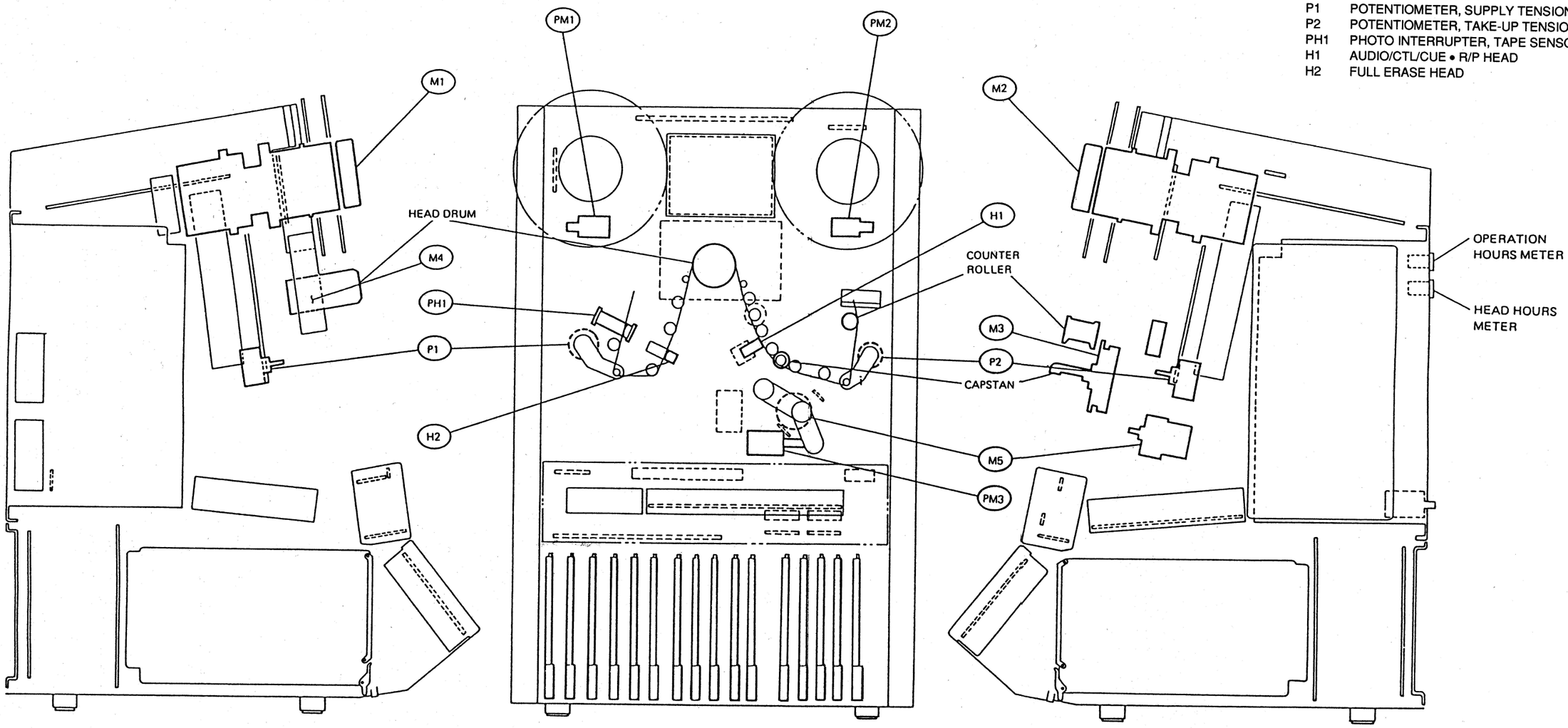

15-1. Note on Repair Parts ..... 15-1
15-2. Exploded View ..... 15-2
15-3. Electrical Parts List ..... 15-41

# SECTION 1
# SERVICE INFORMATION

## 1-1. PRINCIPAL COMPONENTS LOCATION

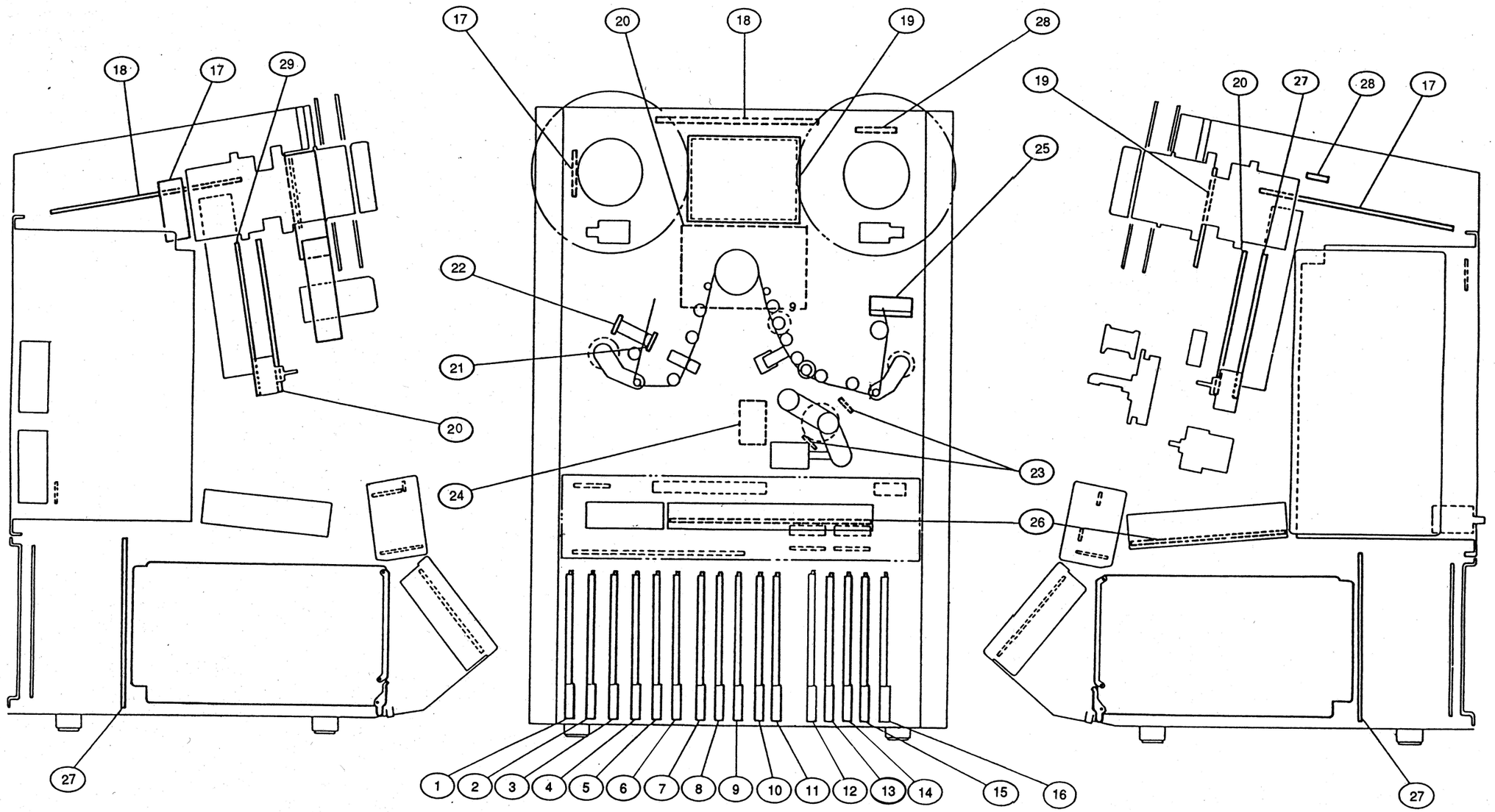
### 1-1-1. TAPE TRANSPORT

| | |
|---|---|
| PM1 | SOLENOID, SUPPLY REEL BRAKE |
| PM2 | SOLENOID, TAKE-UP REEL BRAKE |
| PM3 | SOLENOID, PINCH ROLLER |
| M1 | MOTOR, SUPPLY REEL |
| M2 | MOTOR, TAKE-UP REEL |
| M3 | MOTOR, CAPSTAN |
| M4 | MOTOR, DRUM |
| M5 | MOTOR, PINCH SHIFT |
| P1 | POTENTIOMETER, SUPPLY TENSION |
| P2 | POTENTIOMETER, TAKE-UP TENSION |
| PH1 | PHOTO INTERRUPTER, TAPE SENSOR |
| H1 | AUDIO/CTL/CUE • R/P HEAD |
| H2 | FULL ERASE HEAD |



## 1-1-2. LOCATION OF PRINTED CIRCUIT BOARDS (1)

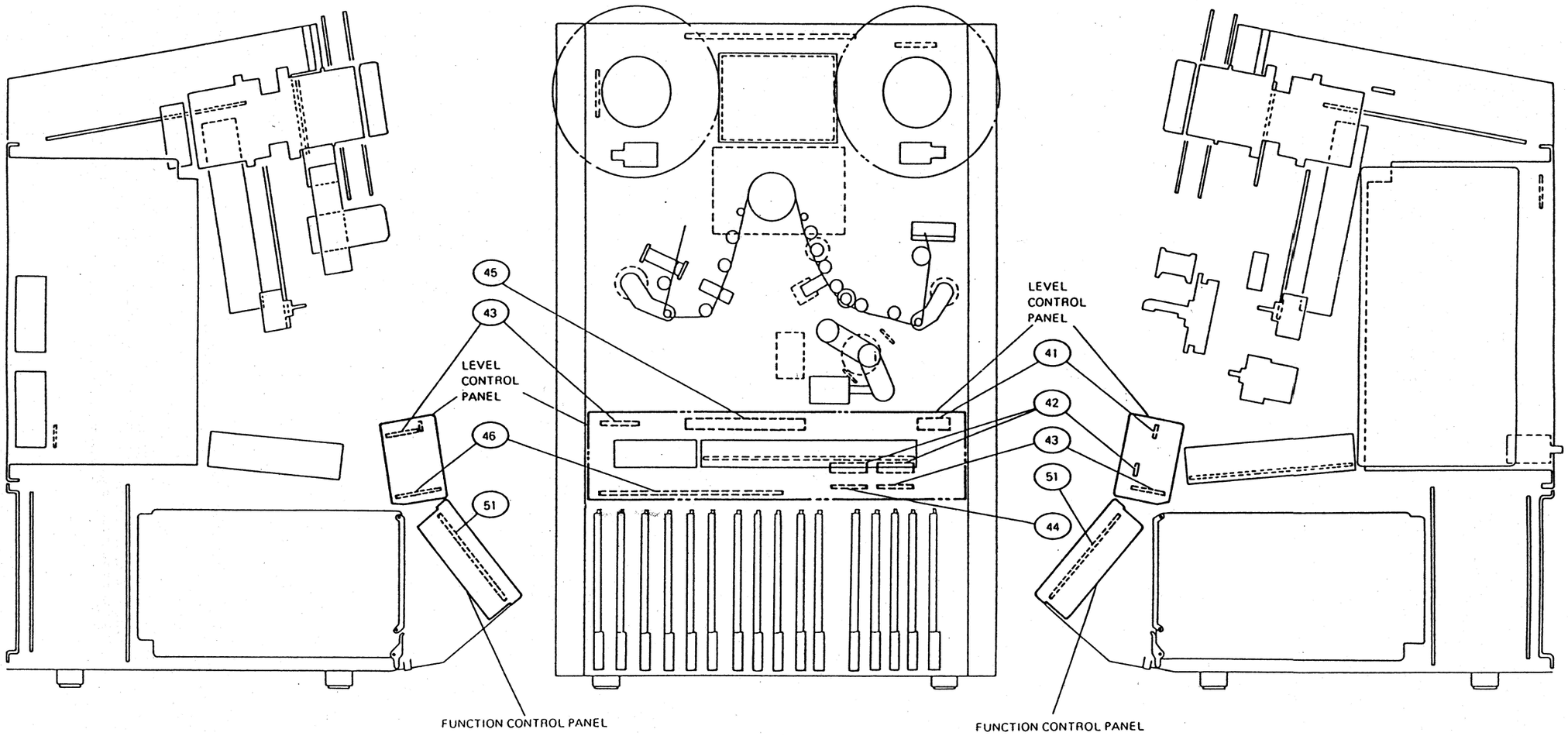
| | | | | | |
|---|---|---|---|---|---|
| 1 | SYC BOARD | 11 | EQ-MM01 (REF) BOARD | 21 | TS-1 BOARD |
| 2 | SYI BOARD | 12 | CM-MM03(CMD) BOARD:MMV802 | 22 | TS-2 BOARD |
| 3 | RSV BOARD | 13 | AMD BOARD | 23 | PSS BOARD |
| 4 | CSV BOARD | 14 | ADE BOARD | 24 | PJ-1 BOARD |
| 5 | DSV BOARD | 15 | AUD (L) BOARD (MMV800) | 25 | CR BOARD |
| 6 | SEP-MM01 (YCS) BOARD:MMV800/810 | | AUD BOARD (MMV810) | 26 | BIAS BOARD |
| | SEP-MM02 (YCS) BOARD:MMV802 | 16 | ADD (R) BOARD (MMV800) | 27 | MB-MM01 (MBD) BOARD |
| 7 | CD-MM01 (CDE) BOARD:MMV800/810 | | NONE (MMV810) | 28 | RJ BOARD (T) |
| | CD-MM02 (CDE) BOARD:MMV802 | 17 | RJ BOARD (S) | 29 | APR BOARD |
| 8 | YD-MM01 (YDE) BOARD | 18 | DRV BOARD | | |
| 9 | CM-MM01 (CMD) BOARD:MMV800/810 | 19 | VP-MM01 (PB) BOARD | | |
| | CM-MM02 (CMD) BOARD:MMV802 | 20 | RA-MM01 (RA) BOARD | | |
| 10 | YM-MM01 (YMD) BOARD | | | | |



## 1-1-3. LOCATION OF PRINTED CIRCUIT BOARDS (2)

FUNCTION CONTROL PANEL
51 KBD BOARD

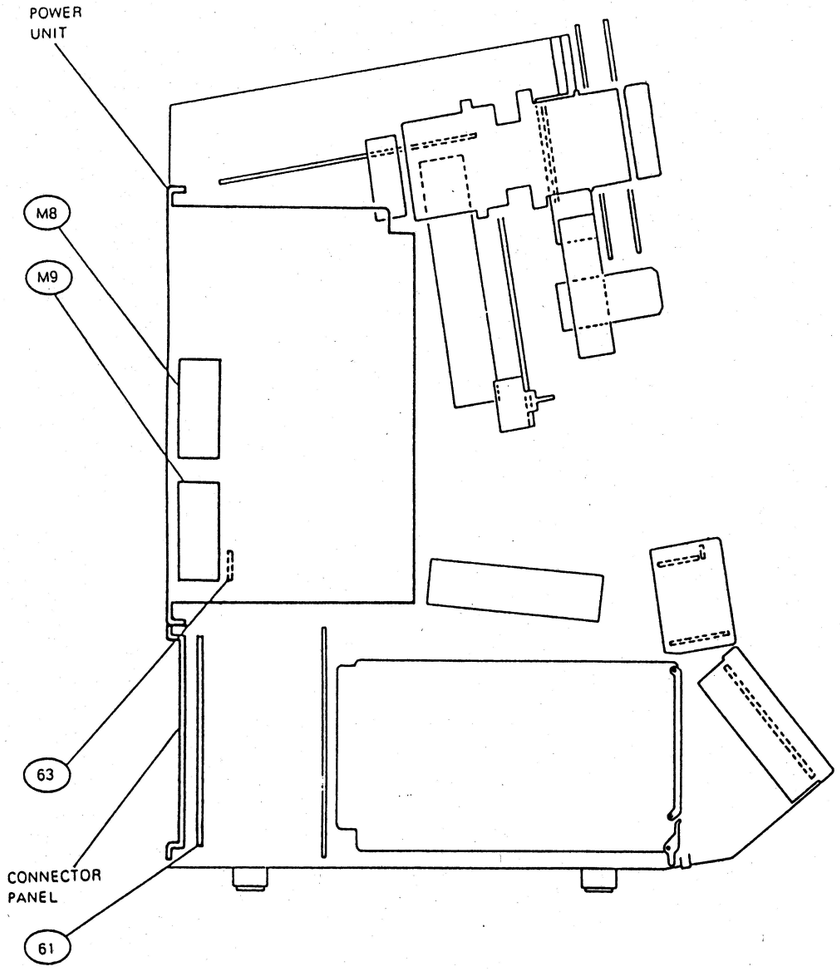
LEVEL CONTROL PANEL
41 RL-SW BOARD
42 LED-1 BOARD
43 NA-SW BOARD
44 MS-SW BOARD
45 LED-2 BOARD
46 VR BOARD

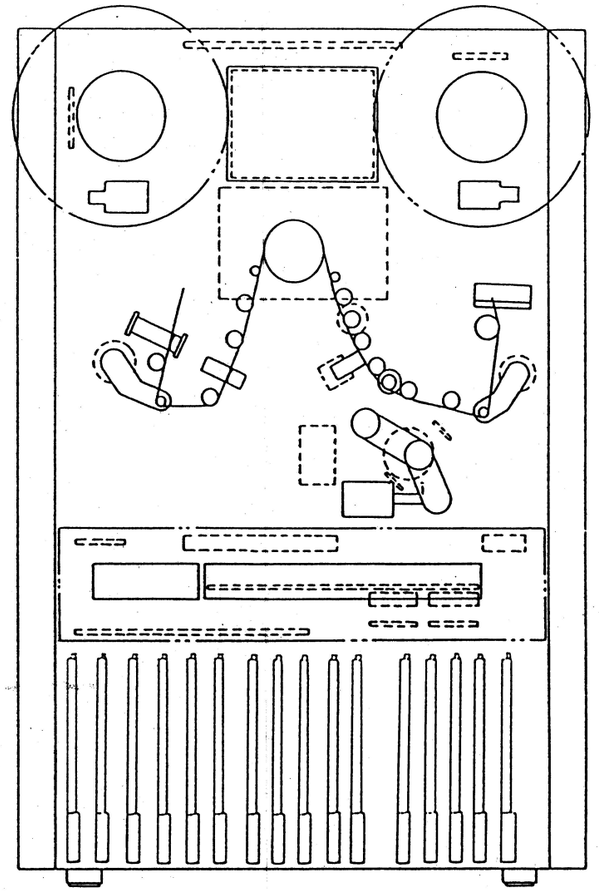


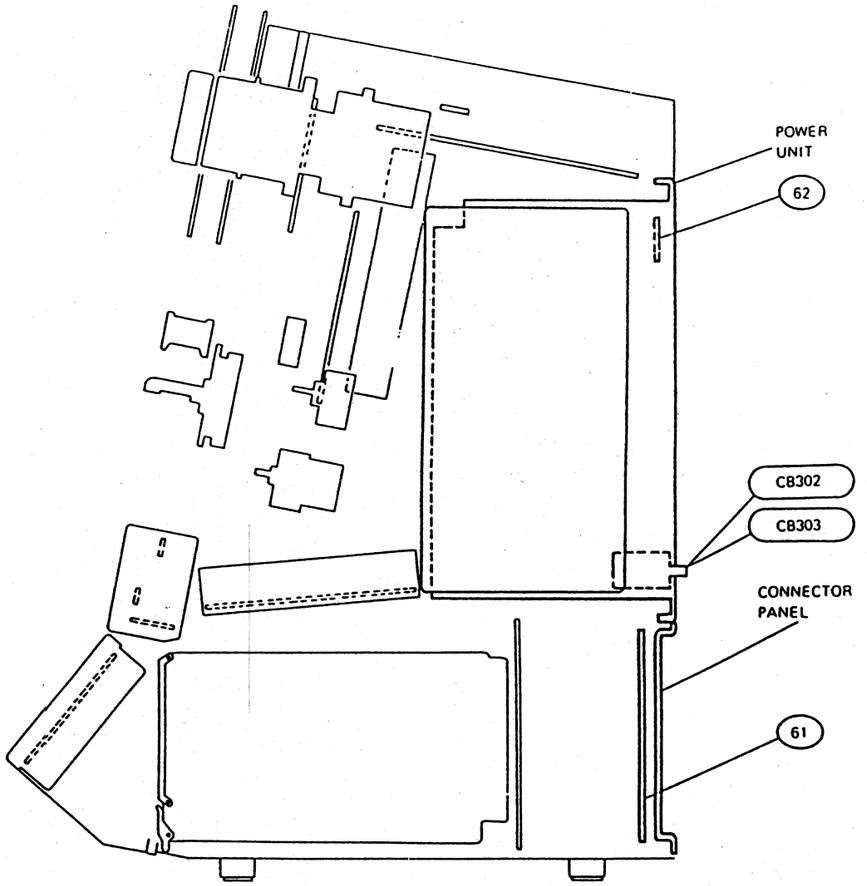
## 1-1-4. POWER SUPPLY, CONNECTOR PANEL

POWER SUPPLY
62 HM-2 BOARD
63 PFJ BOARD
M9 MOTOR, FAN
CB302 BREAKER, 10 A
CB303 BREAKER, 10 A

CONNECTOR PANEL
61 RP BOARD
M8 MOTOR, FAN

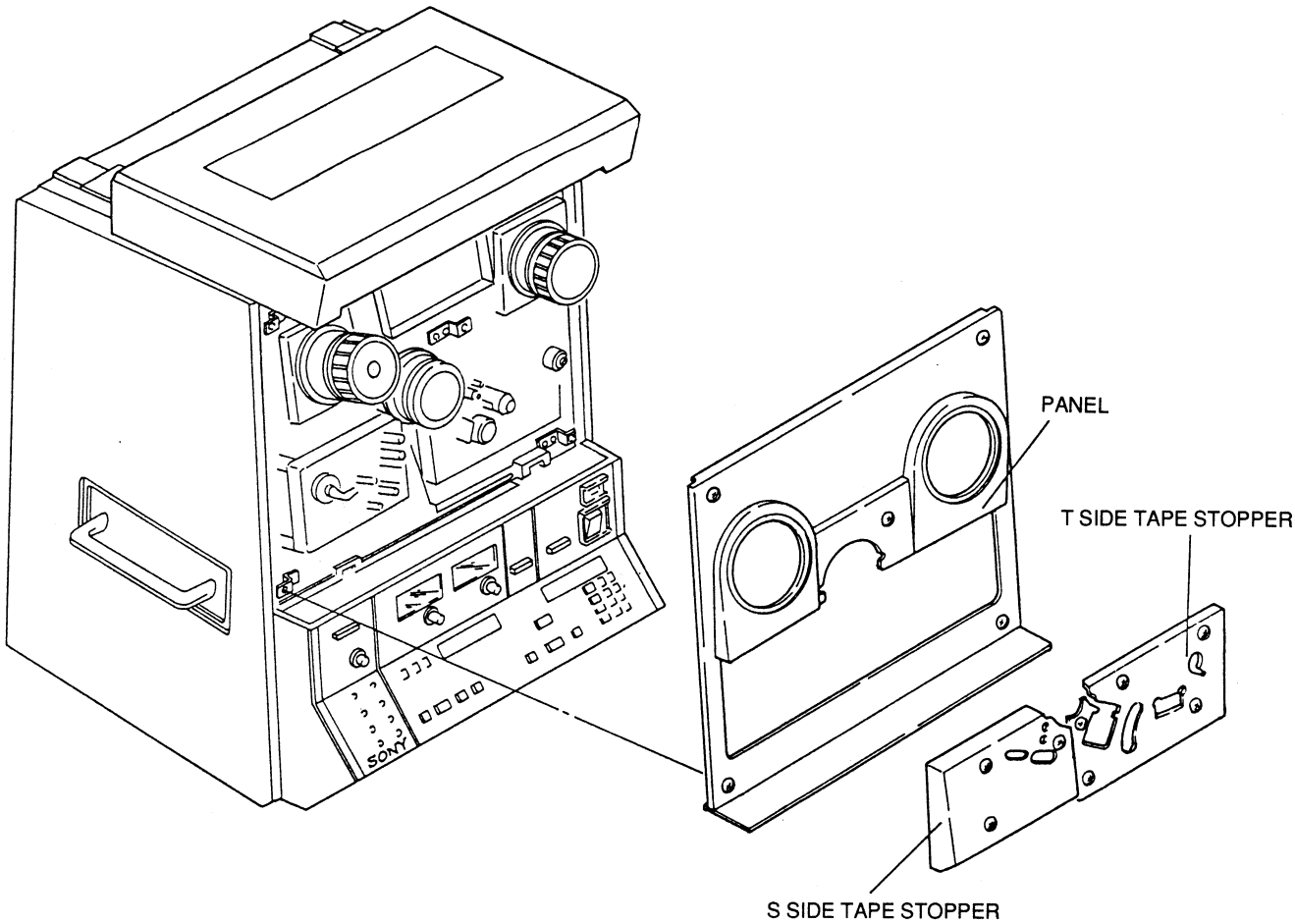




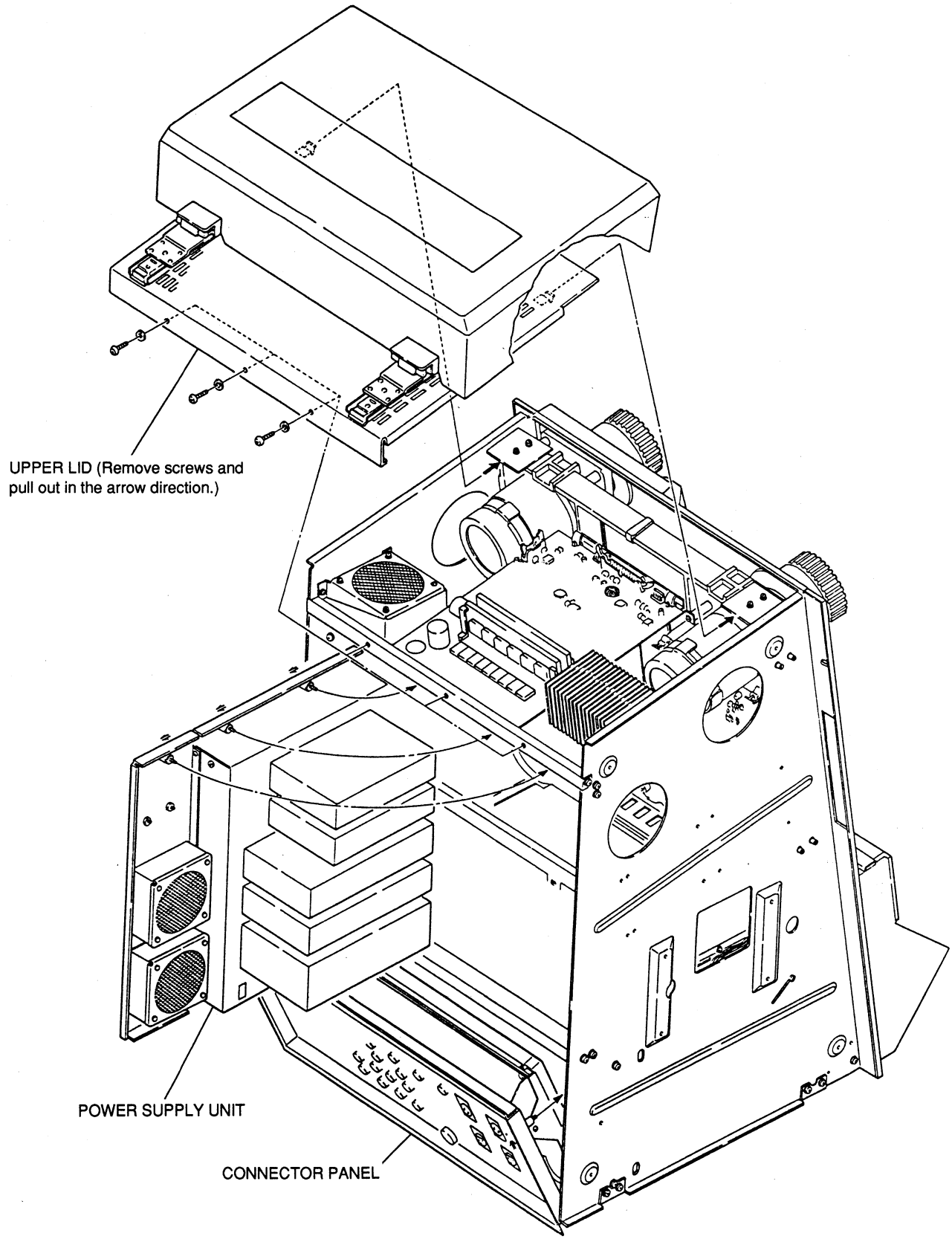
## 1-2. REMOVAL OF CABINET

### 1-2-1. Removal of Front Panel




- Loosen the three S-side tape stopper fixing screws and remove the S-side tape stopper.
- Loosen the five T-side tape stopper fixing screws and remove the T-side tape stopper.
- Loosen the five panel fixing screws and remove the panel.

## 1-2-2. Rear Panel Removal and Opening the Upper Lid




**Note**: Open the power supply unit and the connector panel after sufficiently loosening the "⇑" marked screws.

## 1-3. PERIODIC MAINTENANCE

### 1-3-1. Periodical Maintenance Table

It is recommended to perform the periodic maintenance in order to obtain correct function and higher performance, and also to extend the life of unit.

| Item | | | | Part No. | Q'ty. | Every time | Every 500 hours | Every 3000 hours | Every 6000 hours | Every 9000 hours | Every 12000 hours |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tape path | Tape guide (fixed guide) | • Sleeve | | 2-985-010-01 | 1 | Clean | | Rotate*1 | Replace | | |
| | | | | 2-985-297-01 | 5 | Clean | | Rotate*1 | Replace | | |
| | | | | 2-985-309-01 | 1 | Clean | | Rotate*1 | Replace | | |
| | | • Flange | | 2-985-236-01 | 2 | Clean | | | Rotate*1 | | Replace |
| | | | | 2-985-237-01 | 5 | Clean | | | Rotate*1 | | Replace |
| | Tape guide (rotary guide) | | | A-8604-211-A | 4 | Clean | | Flange Rotate*1 | Replace (Assy) | | |
| | IP roller housing assembly | | | A-8607-009-A | 1 | Clean | | | | Replace | |
| Drum block | Head demagnetizing | | | | — | At need | | | | | |
| | Video RF waveform *2 | | | | — | Check | | | | | |
| | Drum assembly | | MMV800 | A-8603-016-A | 1 | Clean | | Replace | | | |
| | | | MMV810 | A-8603-050-A | | | | | | | |
| | | | MMV802 | A-8603-046-A | | | | | | | |
| | Rotary drum assembly | | MMV800 | A-8603-017-A | 1 | Clean | Replace | | | | |
| | | | MMV810 | A-8603-051-A | | | | | | | |
| | | | MMV802 | A-8603-047-A | | | | | | | |
| Reel table block | Mechanical brake | | | | — | | | Check | | | |
| | Brake band | | | X-3673-601-0 | 2 | | | | | Replace | |
| | S-reel motor | | | 1-541-268-11 | 1 | | | | | | Replace |
| | T-reel motor | | | 1-541-268-11 | 1 | | | | | | Replace |
| Tension regulator arm (S) assembly | | | MMV800 | A-8604-008-A | 1 | Clean | | | | Replace | |
| | | | MMV810/802 | A-8604-226-A | 1 | Clean | | | Replace | | |
| Tension regulator arm (T) assembly | | | | A-8604-015-A | 1 | Clean | | | | Replace | |
| Capstan block | Capstan motor | | | A-8603-052-A | 1 | | | | Replace | | |
| | Capstan arm | | | | — | Clean | | | | | |
| Pinch roller block | Tape path on pinch roller | | | | — | Clean | | | | | |
| | Pinch roller assembly | | | A-8604-017-A | 1 | | | | | Replace | |
| | Pinch solenoid | | | 1-454-389-1 | 1 | | | | Adjust | Replace | |
| Fixed head block | Demagnetizing of the heads | | | | — | At need | | | | | |
| | ACC head | | MMV800/802 | 8-825-771-71 | 1 | Clean | | Replace | | | |
| | | | MMV810 | 1-543-642-12 | | | | | | | |
| | Full erase head | | | 8-825-771-51 | 1 | Clean | | | Replace | | |
| Counter roller block | Tape path on counter roller | | | | — | Clean | | | | | |
| Ventilation fan (power source block) | | | | 1-541-327-11 | 2 | | | | | Replace | |
| Gear motor | | | | 1-541-269-11 | 1 | | | | | Replace | |
| Cleaning blade | | | | X-2986-064-1 | 1 | | | | | Replace | |

*1 Rotate the guide flange or sleeve by 180° so that the abrasion of the guide flange or sleeve does not touch the tape.

*2 Check head clog or damage.

# SECTION 2
# PRECAUTIONS FOR THE POWER SUPPLY UNIT

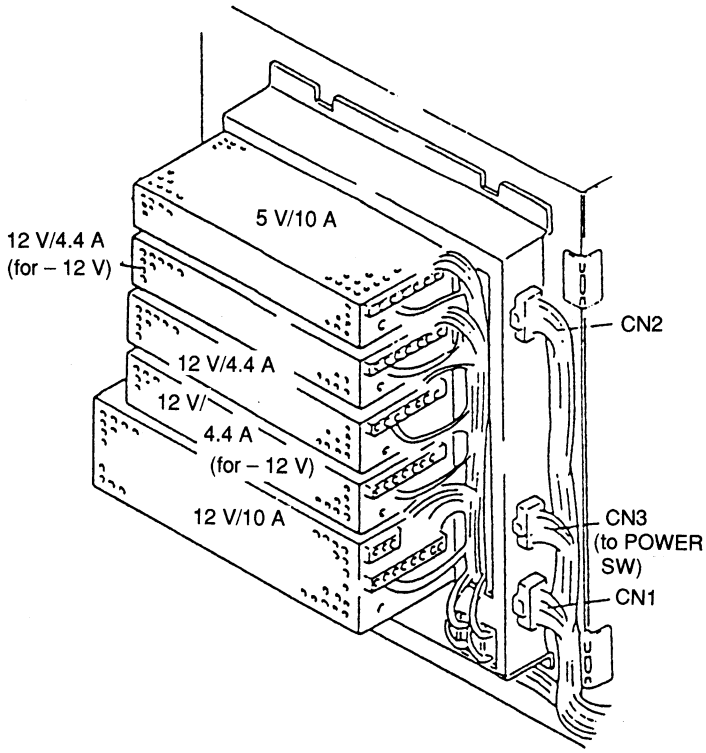
**(1) AC Power Supply Capacity**
Although the maximum power consumption of the machine is 350 VA and its supply voltage 100 V to 240 V ±10% (50/60 Hz), a 10 A current as well as a 30 A to 40 A rush current may flow in the worst case. When current capacity of AC power supply is not enough, the internal power supply circuit may cause a malfunction.

**(2) Ventilation/Heat Dissipation**
The machine is provided with two air-cooling fans.If the air intake port or exhaust port is blocked or the fans stop operation, elements may deteriorate or break due to increased temperatures inside the machine.

**(3) Configuration**
The power supply unit consists of five switching regulators, and the AC line voltage is connected to their primary side.
Scrupulous care must be taken in handling, in particular, to avoid electrical shocks.
1. Amplifier power supply
   The 12 V/4.4 A, and 5 V/10 A lines are supplied to each unit via CN1.
2. Mechanical driving power supply
   The 12 V/10 A, and 12 V/4.4 A lines are supplied to each unit via CN2.

**(4) Voltage Adjustment**
Adjust the voltage with VR on each switching regulator with a load applied to the unit.

**(5)** The power supply unit may be overloaded when the DC voltage is not output, for reasons such as the operation of the 10 A circuit breaker.
In such a case, disconnect CN1 and CN2, then check the load. The switching power supply is considered normal when the voltage returns to its original position in the no-load condition.




CN1

| | |
|---|---|
| 1 | +12V |
| 2 | –12V |
| 3 | +5V |
| 4 | GND |
| 5 | GND |
| 6 | SYS+12 |
| 7 | SYS–12 |
| 8 | GND |
| 9 | GND |
| 10 | GND |
| 11 | APS |
| 12 | GND |

CN2

| | |
|---|---|
| 1 | +12V |
| 2 | –12V |
| 3 | +5V |
| 4 | GND |
| 5 | GND |
| 6 | SYS+12 |
| 7 | SYS–12 |
| 8 | GND |
| 9 | GND |

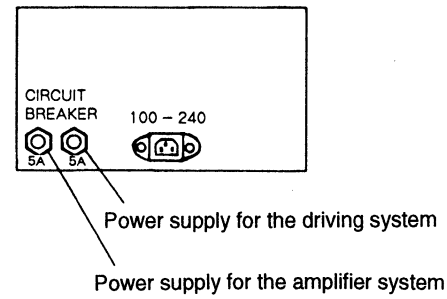
CN3

| | |
|---|---|
| 1 | ACIN |
| 2 | ACIN |
| 3 | AC sw'id |
| 4 | AC sw'id |

**(6) Circuit Breakers**

E (left side): **Power supply for the amplifier system**
The circuit breaker operates when an over current flows on the power supply circuits due to abnormal conditions occurring mainly on the printed circuit boards, etc.

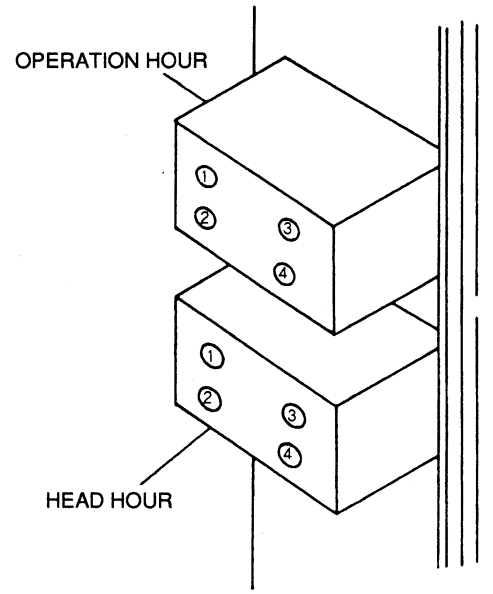
M (right side): **Power supply for the driving system**
The circuit breaker operates when an over current flows on the mechanical driving circuits due to abnormal conditions occurring mainly in the motor, solenoid, etc.




**(7) Counters**

Operation Hours: The counter starts to count simultaneously when the power supply switch is turned on, and displays the overall operation hours.

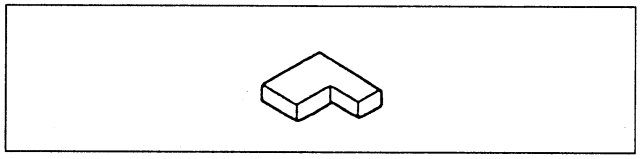
Head Hours: The counter starts to count simultaneously when the head drum starts to operate and displays the head operation hours. When the head is replaced, in case of the drum replacement, etc, the counter should be reset to zero. Short-circuit the pins 3 and 4 of the Head Hours Counter.



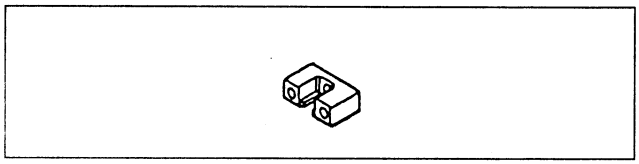
# SECTION 3
# FIXTURES AND TOOLS

## 3-1. FIXTURES AND TOOLS

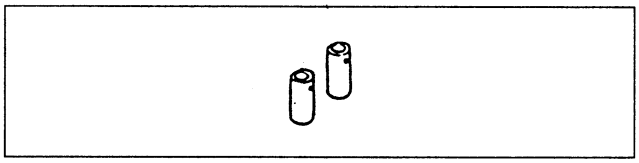
Guide height reference gauge (VP-02)
Sony Part No.: J-8000-044-A



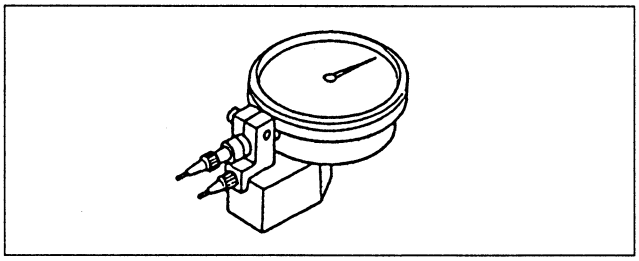
TA-1 tool (VP-14)
Sony Part No.: J-8000-048-A



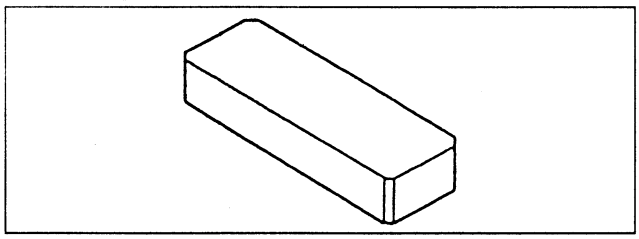
TA-2 tool (VP-15)
Sony Part No.: J-8000-049-A



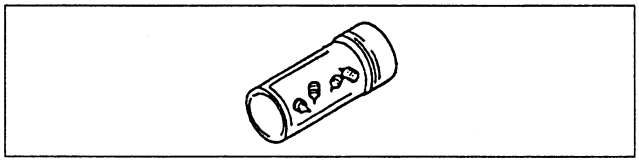
Perpendicular measuring tool (VP-21)
Sony Part No.: J-8000-050-A



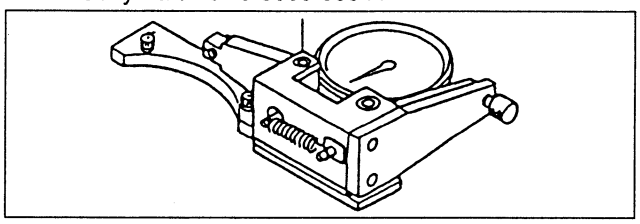
Height adjustment base (VP-25)
Sony Part No.: J-8000-052-A



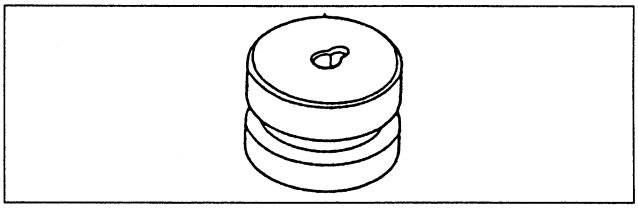
Dihedral adjustment screw set (VP-60)
Sony Part No.: J-8000-055-A



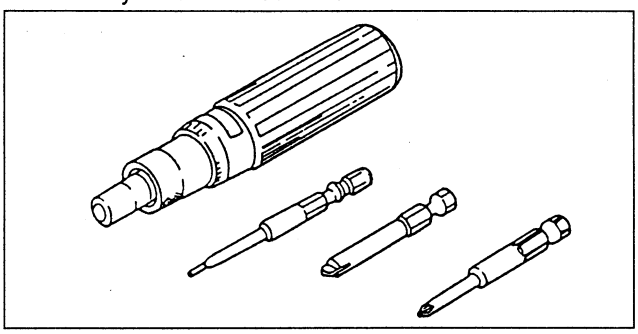
Head-tip projection measuring tool (VP-71)
Sony Part No.: J-8000-056-A



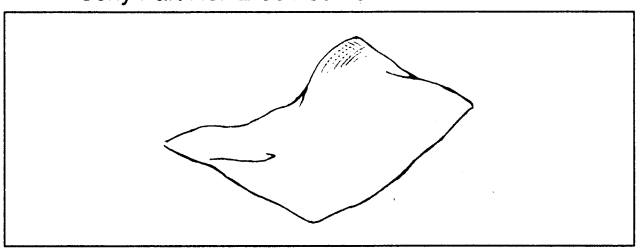
Brake adjustment tool (VP-72)
Sony Part No.: J-8000-057-A



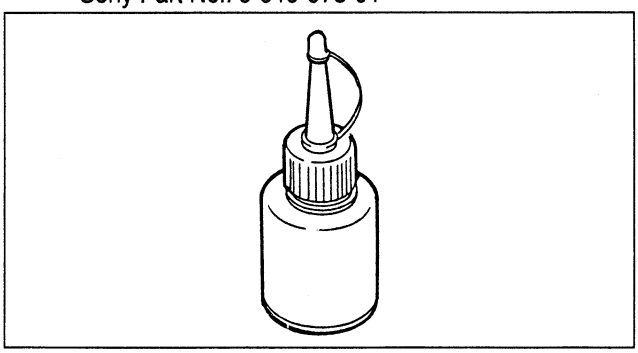
Torque driver set (VP-113)
Sony Part No.: J-8000-201-A



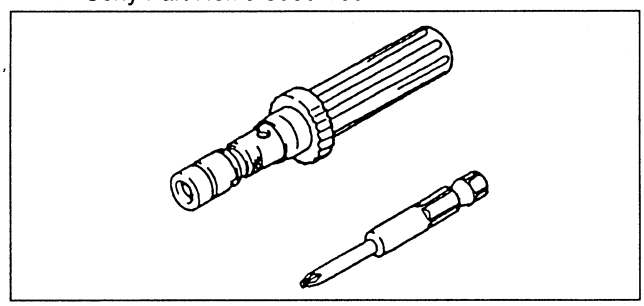
Cleaning piece
Sony Part No.: 2-034-697-01



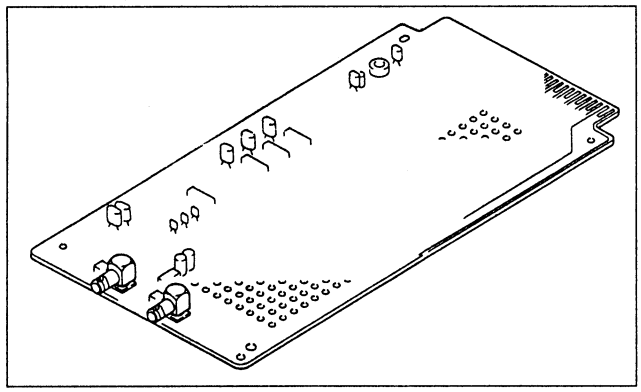
Cleaning fluid
Sony Part No.: 9-919-573-01



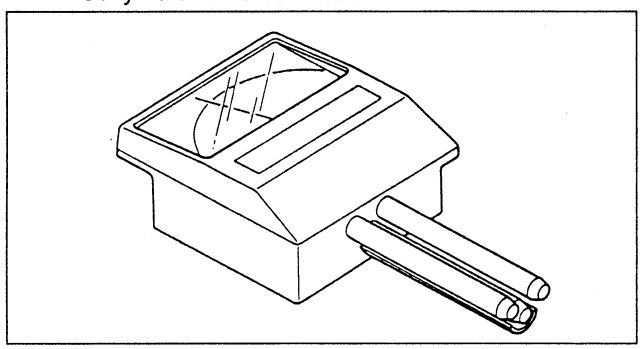
Torque driver set (VP-110)
Sony Part No.: J-8000-166-A



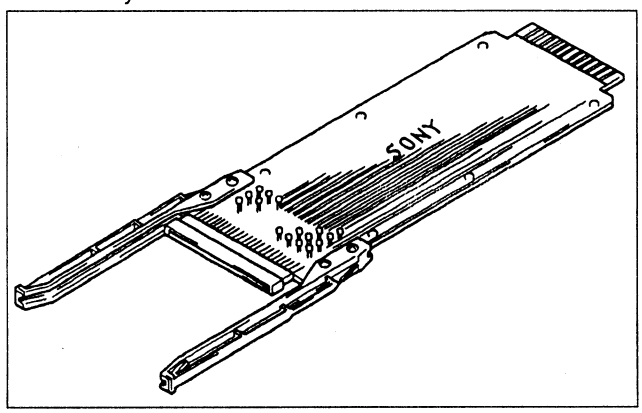
Electrical adjustment board (VP-106)
Sony Part No.: J-8000-275-B



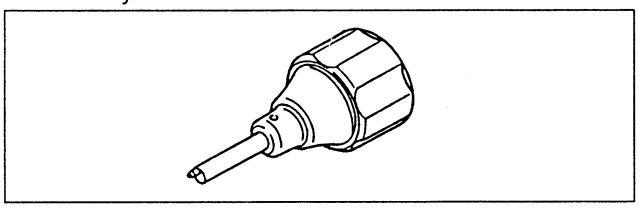
Tentelometer: Model T2-H12-2
Sony Part No.: J-6041-680-A



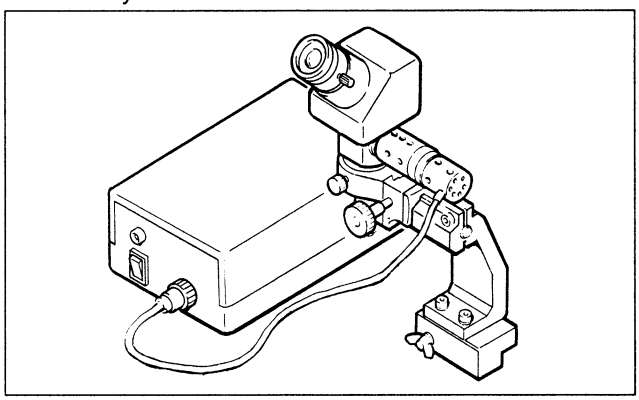
Extender board
Sony Part No.: A-8615-026-A




Eccentric screwdriver
Sony Part No.: J-6080-016-A



Microscope (VP-116)
Sony Part No.: J-8001-046-A



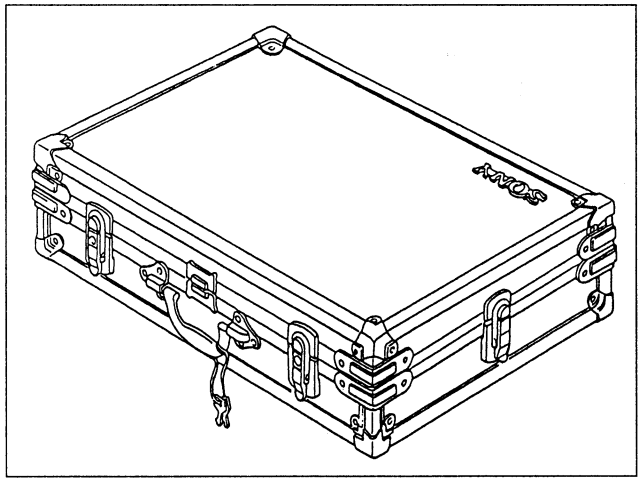
Alignment tape VP800
Sony Part No.: J-8001-041-A

Alignment tape VP810
Sony Part No.: J-8001-042-A

Alignment tape VP820
Sony Part No.: J-8001-043-A

Alignment tapes VFM8080HMF, VFM8040H2FP, VFM8042H2F
Manufacturer: Matsushita Electric Co., LTD

Trunk case
Sony Part No.: J-8000-043-A



# SECTION 4
# MAIN PARTS REPLACEMENT

## 4-1. VIDEO DRUM ASSEMBLY REPLACEMENT

### 4-1-1. Removal

1. Disconnect CN1 from the APR board and CN13 and CN14 from the DRV board.

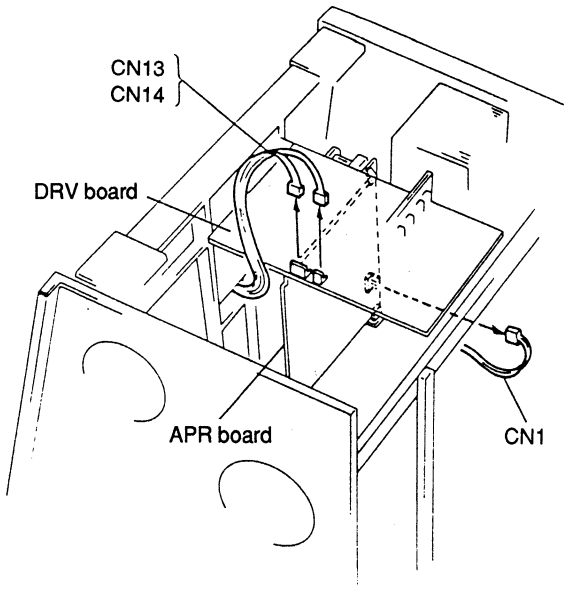



**Fig. 4-1-1. Video Drum Connectors Removal (1)**

2. Disconnect CN1 from the VP-MM01(PB) board.
3. Pull out the harnesses A(CN1) and B(CN13,CN14) removed in step 1 toward drum assembly.

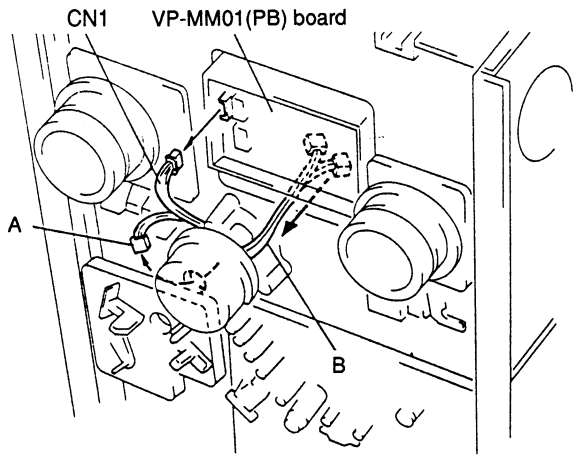



**Fig. 4-1-2. Video Drum Connectors Removal (2)**

4. Loosen the two cap screws fixing the video drum assembly and pull out the assembly in the arrow direction by raising it slightly upward.

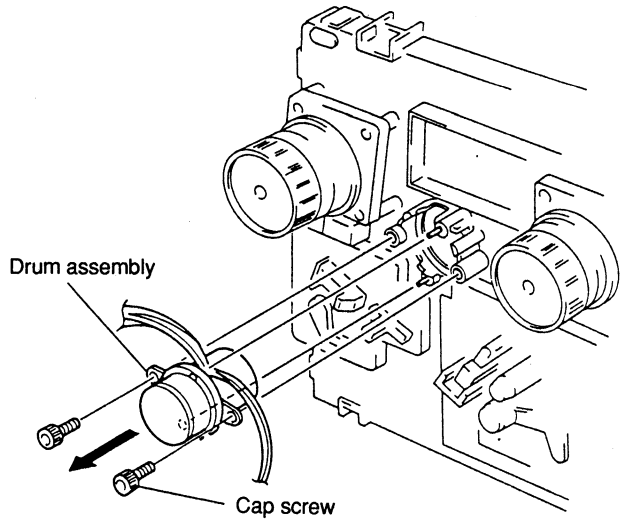



**Fig. 4-1-3. Video Drum Assembly Removal**

### 4-1-2. Installation

1. Install the two positioning pins into the two holes on the video drum assembly.
2. Turn the video drum assembly in the maximum clockwise direction and secure it with two cap screws.

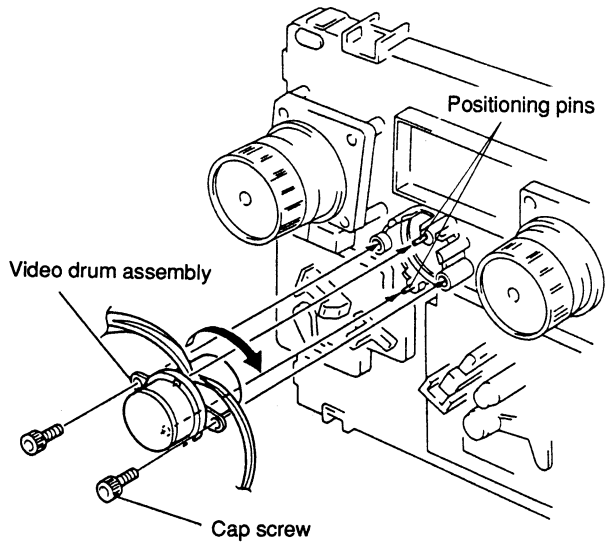



**Fig. 4-1-4. Video Drum Assembly Installation**

3. Connect CN1 (short) to the PB board.
4. Insert CN1 (long), CN13 and CN14 through the hole on the mechanical frame.

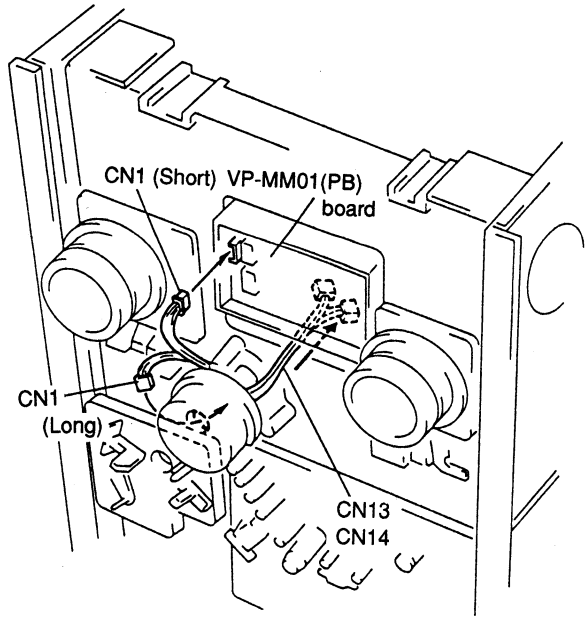



**Fig. 4-1-5. Video Drum Assembly CN Connection (1)**

5. Connect CN1 to the APR board and CN13 and CN14 to the DRV board. (Fig. 4-1-6)

**After replacing the drum assembly, perform "section 11-1. Tape Path Adjustment".**

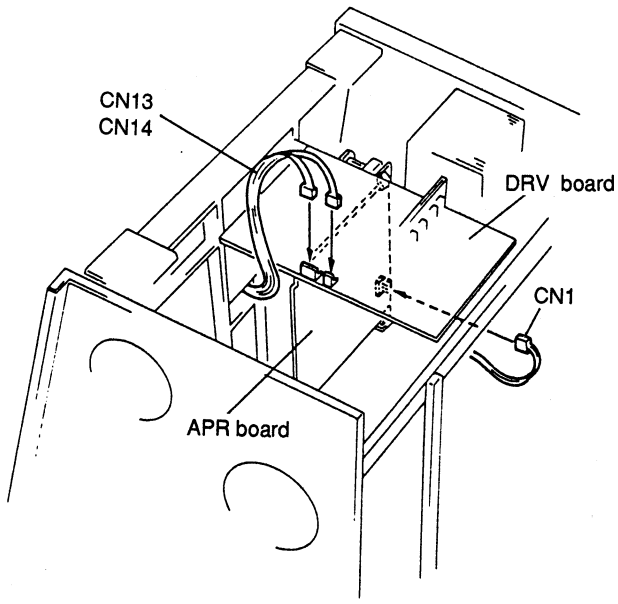



**Fig. 4-1-6. Video Drum Assembly CN Connection (2)**

## 4-2. ROTARY DRUM ASSEMBLY REPLACEMENT

### 4-2-1. Removal

1. Remove the drum assembly by loosening the three button head screws.
2. Pull and remove the drum ornamental cover in the arrow direction. (Fig. 4-2-1)

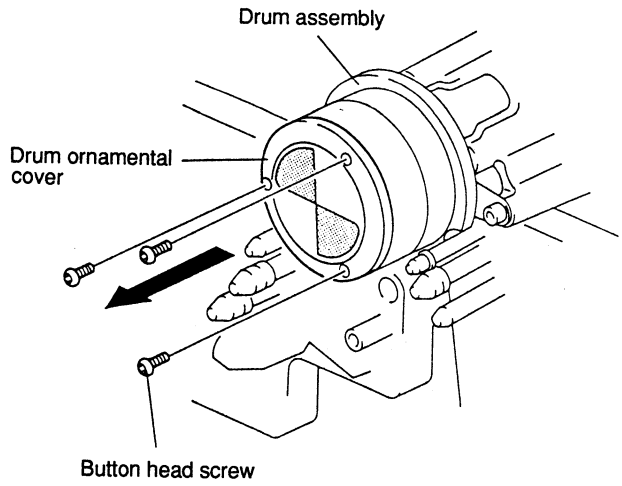



**Fig. 4-2-1. Drum Ornamental Cover Remova**

3. Desolder the head lead wires ① to ⑧ with a soldering iron.

**[ MMV800/802 ]**

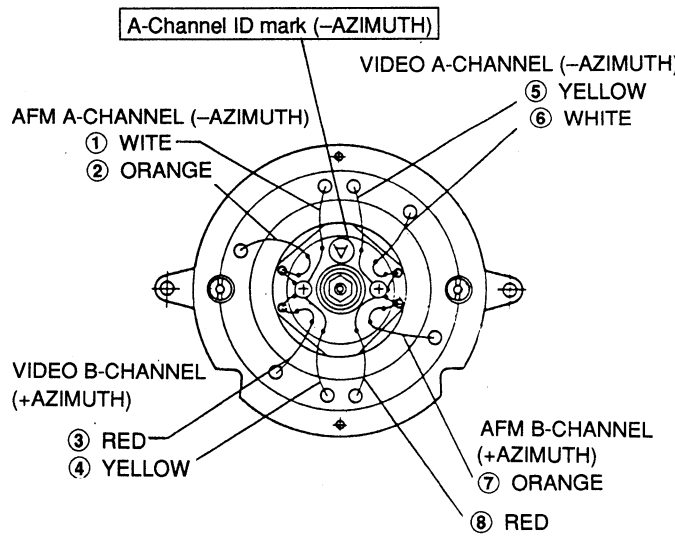



**Fig. 4-2-2. Head Lead Wires Removal (MMV800/802)**

**[ MMV810 ]**

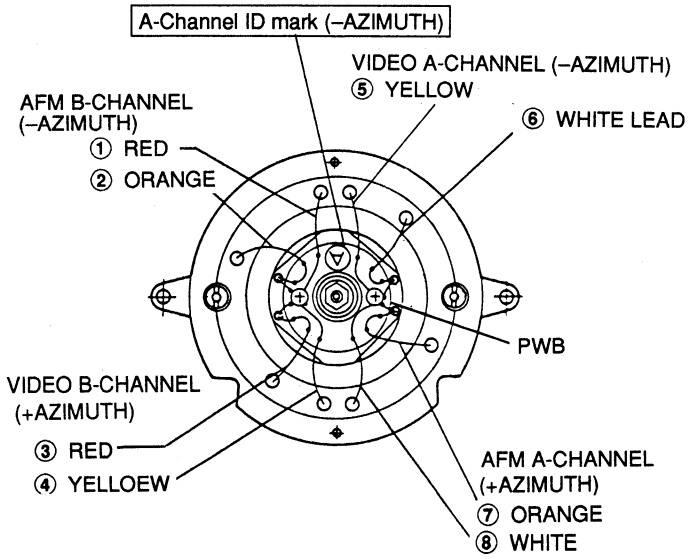



**Fig. 4-2-3. Head Lead Wire Removal (MMV810)**

4. Loosen and remove the two screws fixing the rotary drum assembly.

**Note:** Since the rotary drum is installed with a special small screw, be sure to use the bit included in the torque driver set (VP-113) appropriate to the rotary drum.

5. Remove the rotary drum by pulling it toward you.

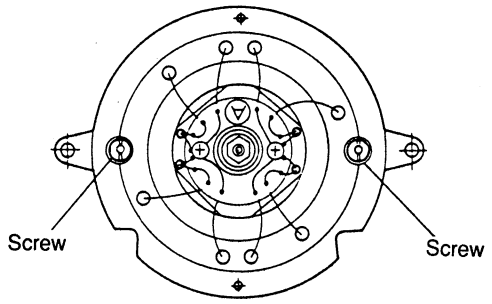



**Fig. 4-2-4. Rotary Drum Removal**

### 4-2-2. Installation

1. Clean the reference surface of the drum assembly and rotary drum assembly with cleaning piece moistened with cleaning fluid to remove oil and dust.
2. After cleaning, be sure to clean a few times with a dry cloth.

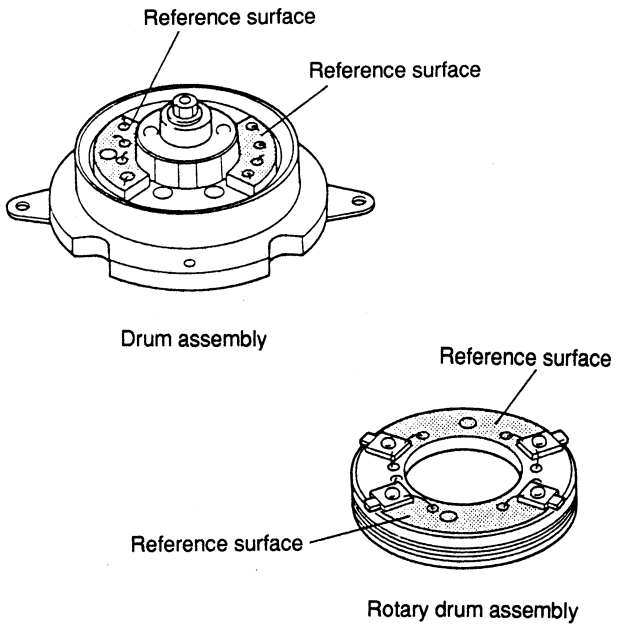
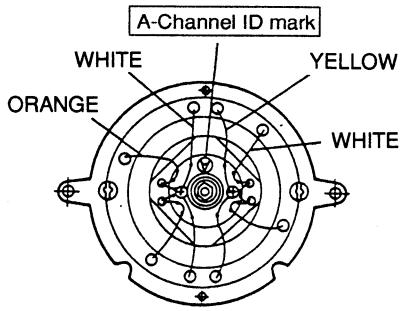


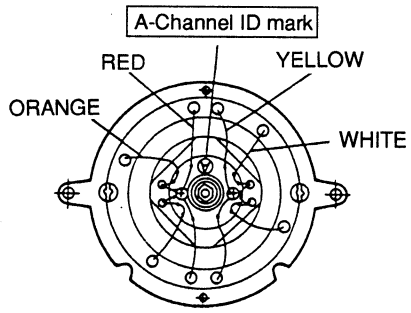

**Fig. 4-2-5. Preparation for Installing the Rotary Drum**

3. Install rotary drum assembly to the drum assembly.
   ***Note:*** *Use extreme care to install the rotary drum assembly to the drum assembly.*
4. Insert the two screws ① M3 × 10 into the holes of the rotary drum assembly, and thrust it until the flat washer and the rotary drum assembly comes into contact with the top of the lower drum assembly.

**[ MMV800/802 ]**




**[ MMV810 ]**



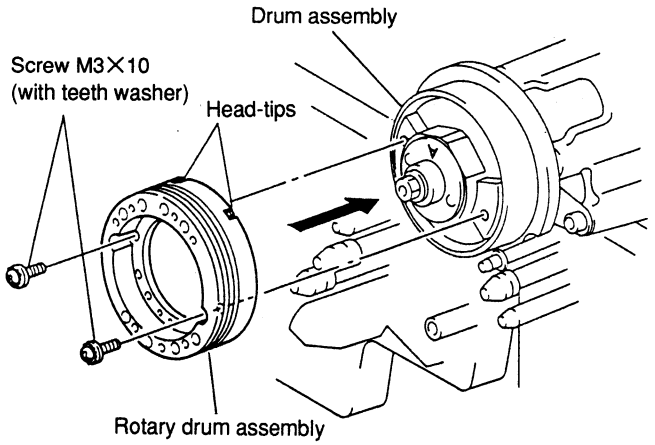




**Fig. 4-2-6. Rotary Drum Temporary Installation**

5. Confirm that the position of the spacer for the head-tip projection measuring tool (VP-71).
6. Turn the adjusting screw in the arrow direction until the A-side of the head-tip projection measuring tool (VP-71) comes into contact with B-side.
7. Attach the head-tip projection measuring tool (VP-71) alongside the outer circumference of the drum assembly flange and secure with cap-screw.

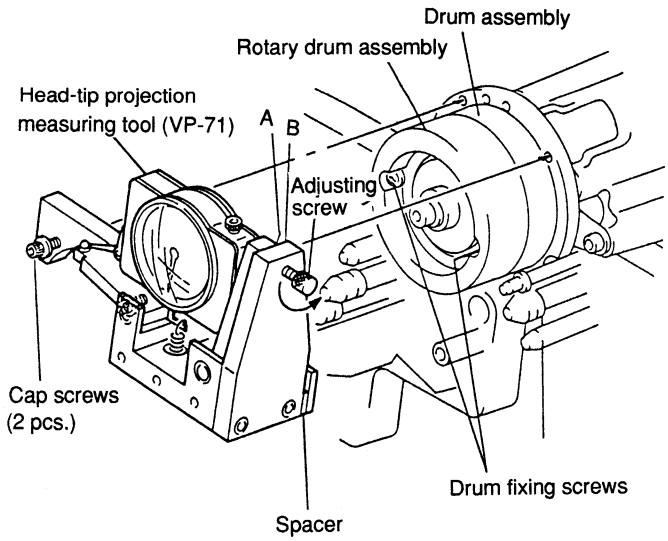



**Fig. 4-2-7. Rotary Drum Eccentricity Adjustment**

8. Rotate the VP-71's adjusting screw in the opposite direction of the arrow until the needle indicates zero.
9. Rotate the rotary drum assembly clockwise and counterclockwise slowly for one turn by hand and check the negative and positive values of needle swing.
   Rotate the rotary drum assembly clockwise slowly and stops where the needle swing maximizes. With a wooden handle of screwdriver, tap lightly the outer circumference of the rotary drum assembly until the eccentricity meet the followng specification.
   **Specification:** within 2 $\mu$m

10. Rotate the two rotary drum fixing screws about 1/8 (45°) turn alternately with torque screwdriver and secure the screws.
    **Tightening torque:** 8 kgf • cm

11. Solder eight lead wires removed in step 3 of section 4-2-1 onto the PWB. (Figs 4-2-2 and 4-2-3)

12. Clean the rotary drum outer circumference and tape path of lower drum with cleaning piece moistened with cleaning fluid. After cleaning, be sure to clean a few times with a dry cloth.

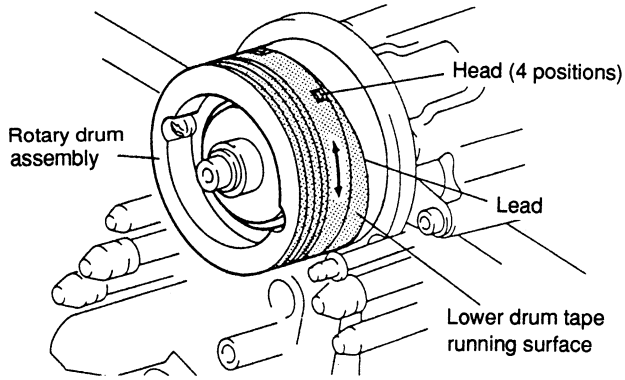



**Fig. 4-2-8. Drum Cleaning**

13. Press the cleaning piece moistened with cleaning fluid to the heads, rotate the drum in the arrow direction with hand, and clean the heads. After cleaning, be sure to clean a few times with a dry cloth.

**Note 1: When cleaning the head-tips, be sure not to clean the head in a vertical direction. Also, never attempt to clean the heads with a cotton swab.**
**Note 2: After replacing the drum assembly, perform "section 11-1. Tape Path Adjustment".**
**Note 3: When attaching the drum ornamental cover, see section 4-3.**

## 4-3. DRUM ORNAMENTAL COVER INSTALLATION

1. Put the drum ornamental cover onto the rotary drum assembly and align the position Ⓐ of the drum ornamental cover with the video head.
2. Secure the drum ornamental cover with three button head screws 3×8.
   **Tightening torque:** 2 kgf • cm

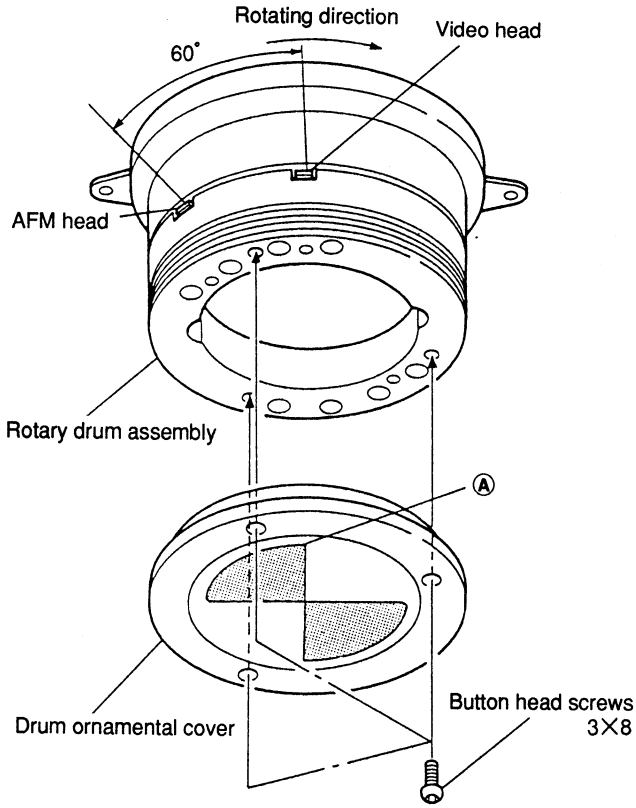



**Fig. 4-3-1. Drum Ornamental Cover Installation**

## 4-4. REEL MOTOR REPLACEMENT

### 4-4-1. S-reel Motor Replacement

#### 4-4-1-1. Removal

1. Turn the power off and remove the front panels.
2. Open the power block and pull out the connector CN1 from the RJ board of S-reel motor assembly.
3. Remove S-reel motor assembly attached to the mechanical frame by removing the four cap screws.

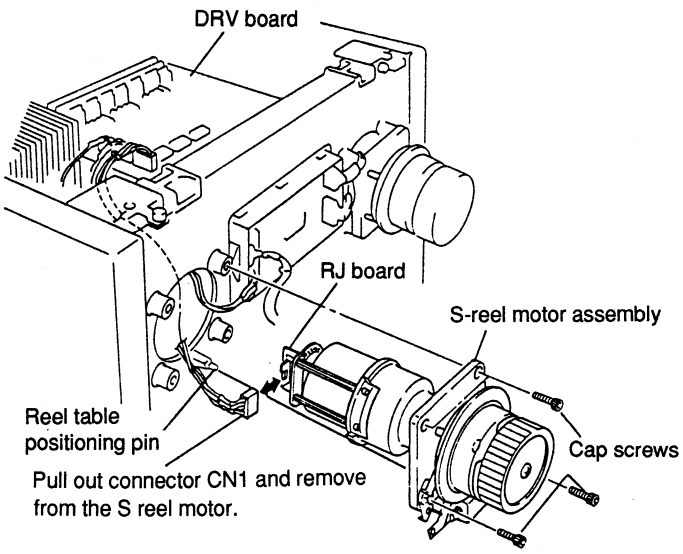



**Fig. 4-4-1. S-reel Motor Removal**

4. Loosen the cap screw from the coupling of the motor.
5. Pull out the connector CN3 from the RJ board.
6. Remove the sensor bracket by removing the two screws.
   **Note**: Be careful not to come into contact the photointerrupter with reel FG.
7. Remove the three cap screws from the motor fixing bracket and remove the S-reel motor.
8. Remove the set screw from the reel FG assembly.
9. Desolder the two wires (red and black) from the S-reel motor.

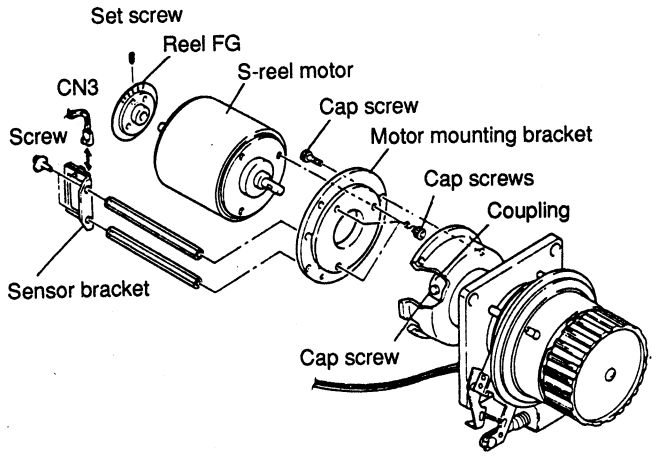



**Fig. 4-4-2. S-reel Motor Removal**

#### 4-4-1-2. Installation

1. Solder the two lead wires removed in section 4-4-1-1 to the motor.
   Red wire → ⊕ terminal of motor
   Black wire → ⊖ terminal of motor
2. Attach the S-reel motor onto the motor mounting bracket and secure it with three cap screws.
3. Attach the motor mounting bracket onto the reel housing with three cap screws.
4. Secure the cap screw of the coupling with specified tightening torque.
   **Tightening torque**: 10 kgf • cm
5. Insert the reel FG into the S-reel motor shaft: however, do not tighten the set screw.
6. Install the sensor bracket.
7. Position the slit plate of reel FG in the center of the sensor and secure the reel FG with set screw.
8. Connect the connector from the S-reel motor to CN3 on the RJ board.
9. Put the S-reel motor assembly onto the mechanical frame and secure it with four cap screws.
   **Note:** When installing the S-reel motor assembly, align the position of the reel table positioning pin of the mechanical frame with the hole of the S-reel table, as shown in Fig. 4-4-1.
10. From the rear of the unit (power unit side), connect CN7 from the DRV board to CN1 on the RJ board.

***Note**: After replacing the S-reel motor, be sure to perform Section 11.*

### 4-4-2. T-reel Motor Replacement

#### 4-4-2-1. Removal

1. Turn the power off and remove the front panel.
2. Open the power blcock and pull out the connector CN1 from the RJ board of T-reel motor assembly.
3. Remove T-reel motor assembly attached to the mechanical frame by removing the four cap screws.

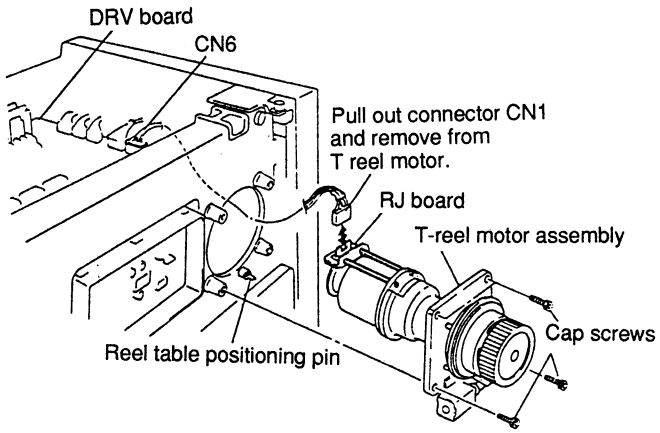



**Fig. 4-4-3. T-reel Motor Removal**

4. Loosen the cap screw from the coupling of the motor.
5. Pull out the connector CN3 from the RJ board.
6. Remove the sensor bracket by removing the two screws.
   **Note**: Be careful not to come into contact the photointerrupter with reel FG.
7. Remove the theree cap screws from the motor fixing bracket and remove the T-reel motor.
8. Remove the set screw from the reel FG assembly.
9. Desolder the two wires (red and black) from the T-reel motor.

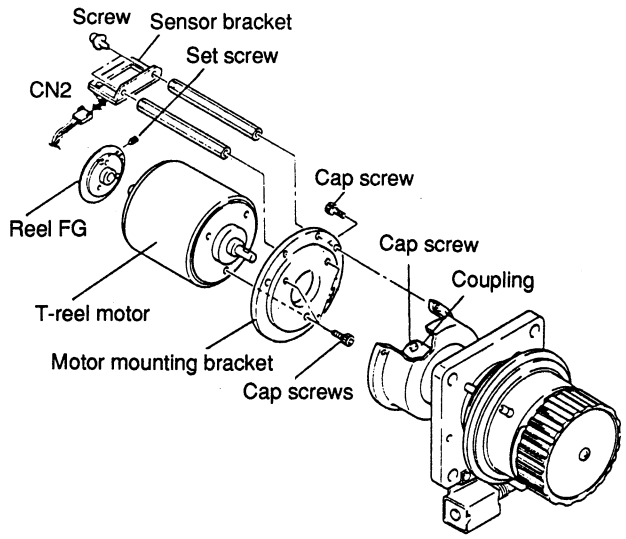



**Fig. 4-4-4. T-reel Motor Removal**

#### 4-4-2-2. Installation

1. Solder the two lead wires remove in section 4-4-2-1 to the motor.
   Red wire → ⊕ terminal of motor
   Black wire→ ⊖ terminal of motor
2. Attach the T-reel motor onto the motor mounting bfacket and secure it with three cap screws.
3. Attach the motor mounting bracket onto the reel housing with three cap screws.
4. Secure the cap screw of coupling with specified tightening torque.

   **Tightening torque**: 10 kgf • cm
5. Insert the reel FG into the T-reel motor shaft; however, do not tighten the set screw.
6. Install the sensor bracket.
7. Position the slit plate of reel FG in the center of the sensor and secure the reel FG with set screw.
8. Connect the connector from the T-reel motor to CN3 on the RJ board.
9. Put the T-reel motor assembly onto the mechanical frame and secure it with four cap screws.
   **Note:** When installing the T-reel motor assembly, align the position of the reel table positioning pin of the mechanical frame with the hole of the T-reel table, as shown in Fig. 4-4-3.
10. From the rear of the unit (power block side), connect CN6 on the DRV board to CN1 on the RJ board.

***Note**: After replacing the T-reel motor, be sure to perform Section 11.*

## 4-5. BRAKE BAND REPLACEMENT

This section describes only T-side brake band replacement, therefore perform the same replacement procedures when replacing the S-side brake band.

### 4-5-1. Brake Band Removal

1. Loosen the two setscrews fixing the reel table.
2. While pushing the plunger section of the brake solenoid by hand, remove the reel table.
3. Remove the two E rings and take out the brake band.
4. Clean the brake band contacting surface of the reel table with cleaning piece moistened with cleaning fluid.

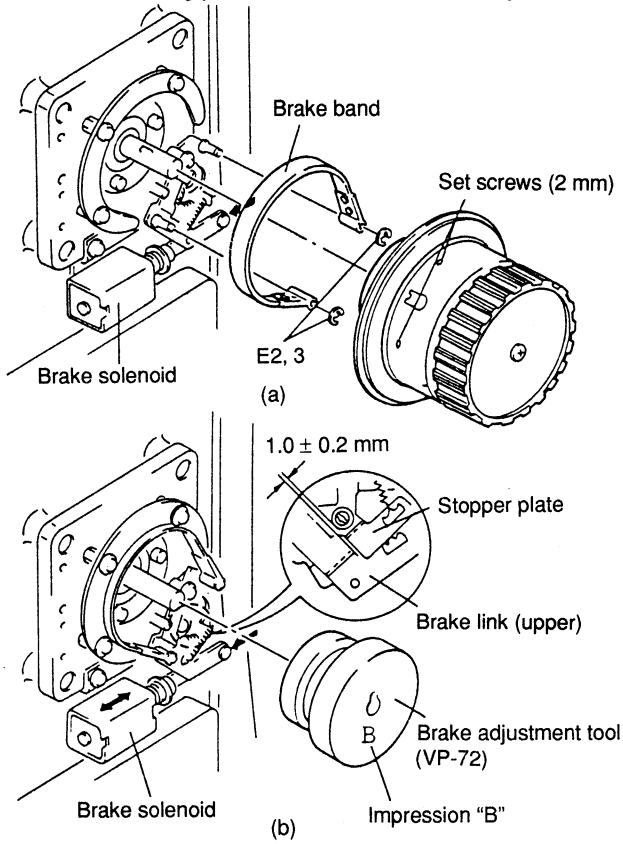



**Fig. 4-5-1. Brake Band Replacement**

### 4-5-2. Brake Band Installation

1. Before installing the brake band, perform brake band guide positioning adjustment.
   **a.** Attach the brake adjustment tool (VP-72) to the reel motor shaft with impression "A" outside, as shown in Fig. 4-5-2.
   **b.** While lightly pressing the brake band guide toward the brake adjustment tool (VP-72), secure the three screws.
   **c.** Remove the brake adjustment tool (VP-72).
2. Install new brake band to the position as shown in Fig. 4-5-1, and secure it with two E rings.
3. While pushing the plunger solenoid by hand, attach the brake adjusting jig (VP-72) to the reel motor shaft with impression "B" outside, as shown in Fig. 4-5-1.
4. With thickness gauge, check that the clearance between the stopper plate and the brake link (upper) is 1.0 ±0.2 mm with the plunger solenoid unpushed.
   If not, adjust the position of the stopper plate (see section 4-5-3).
5. Remove the brake adjustment tool (VP-72) while pushing the plunger solenoid and install the reel table. While pushing the reel table slightly in the motor direction, secure the two setscrews.

***Note:*** *Use care to prevent bending the brake band.*

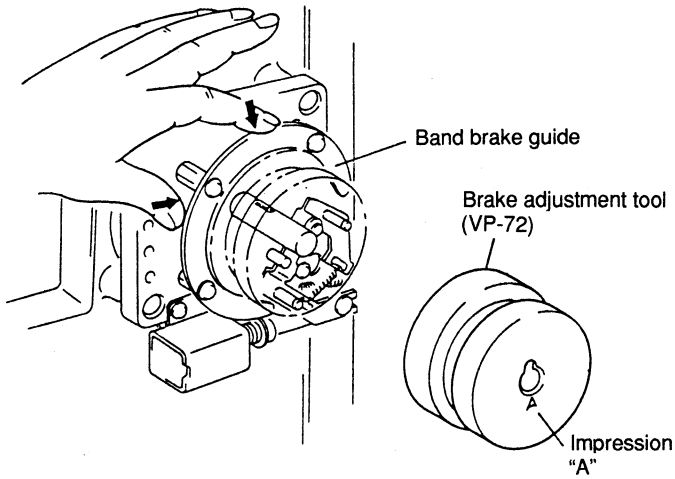



**Fig. 4-5-2. Brake Band Guide Position Adjustment**

### 4-5-3. Stopper Plate Position Adjustment

Perform this adjustment only when it is judged that the stopper plate position adjustment is required in step 4 of section 4-5-2.

1. While pushing the brake solenoid plunger by hand, attach the brake adjustment tool (VP-72) to the reel shaft with impression "B" of tool outside.
2. With thickness gauge, check that the clearance between the stopper plate and the brake link (upper) is 1.0 ±0.2 mm with plunger solenoid unpushed.
   If not, adjust the position of the stopper plate by loosening the screws.

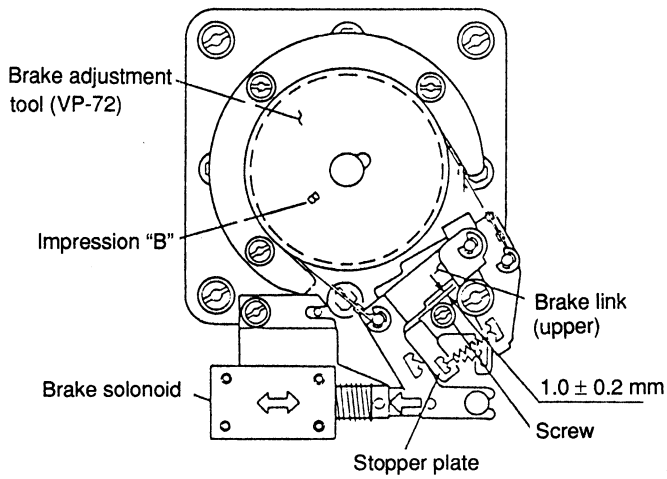
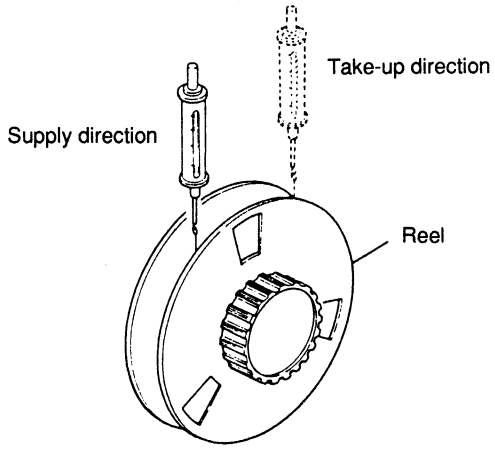


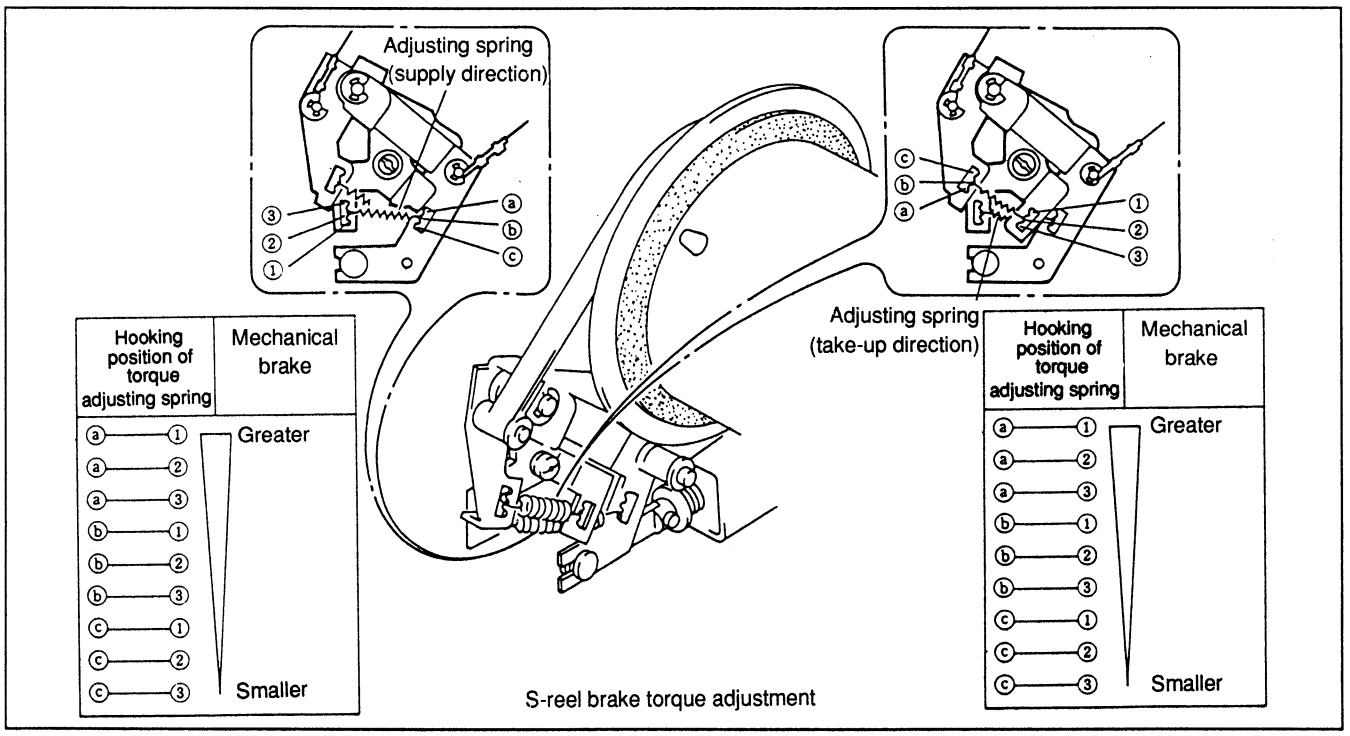

**Fig. 4-5-3. Stopper Plate Position Adjustment**

### 4-5-4. S-reel Brake Torque Adjustment

1. Load the 7-inch empty reel to the S-reel table.
2. Wind the thread onto the empty reel about 2 or 3 turns, hook up the other end the thread with tension scale (300 gr).
3. Pull the tension scale upward without touching it to the flange of the empty reel, and check the following tensions.
   **Specifications**: Take up tension = 200 ±20 g
   Supply tension = 100 ±10 g
4. If not, change the hooking position of the spring.



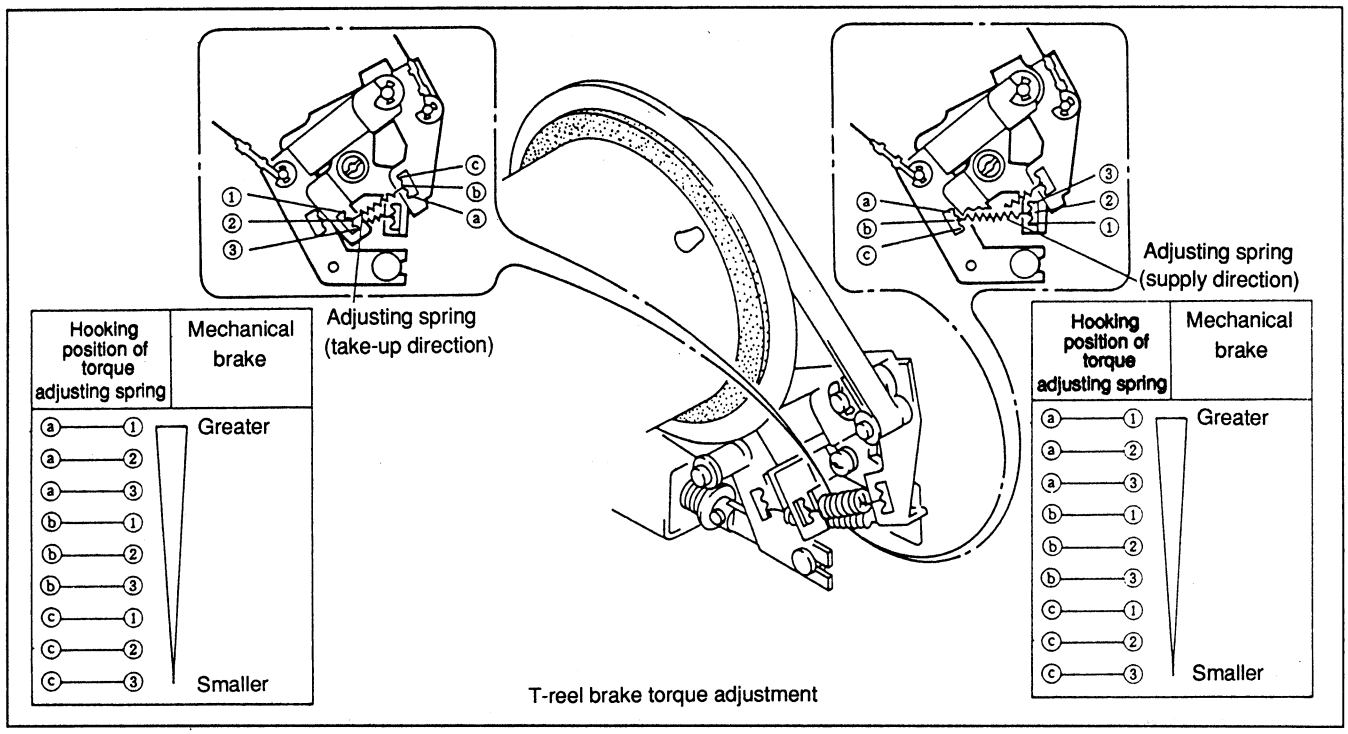

S-reel brake torque adjustment




S-reel brake torque adjustment

### 4-5-5. T-reel Brake Torque Adjustment

1. Load the 7-inch empty reel to the T-reel table.
2. Wind the thread onto the empty reel about 2 or 3 turns, hook up the other end the thread with tension scale (300 gr).
3. Pull the tension scale upward without touching it to the flange of the empty reel, and check the following tensions.
   **Specifications**: Take up tension = 200 ±20 g
   Supply tension = 100 ±10 g
4. If not, change the hooking position of the spring.




T-reel brake torque adjustment

## 4-6. BRAKE SOLENOID REPLACEMENT

This section describes only T-side brake solenoid replacement, therefore perform the same replacement procedures when replacing the S-side brake solenoid.

### 4-6-1. Brake Solenoid Removal

1. Loosen the two setscrews which secure the reel table. Pull out the reel table while pushing the plunger solenoid by hand.
2. Disconnect CN2 on the RJ board.
3. Remove the screw and remove the brake solenoid assembly.
4. Disassemble the brake solenoid assembly.

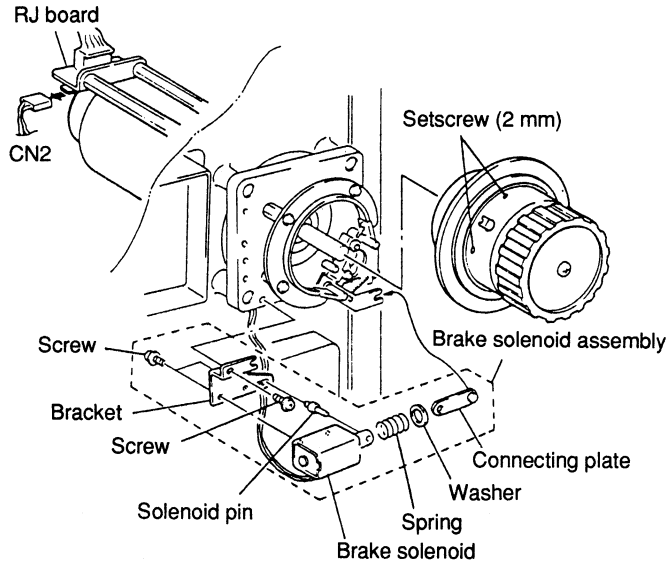



**Fig. 4-6-1. Brake Solenoid Replacement**

### 4-6-2. Brake Solenoid Installation

1. Replace the solenoid and assemble again. At this time, be sure not to tighten the bracket securely.
2. Tighten the bracket after adjusting the position between the brake solenoid pin and the bracket is 5.0 ±0.5 mm as shown in Fig. 4-6-2.
3. Tighten lightly the brake solenoid assembly with screw as shown in Fig. 4-6-3.

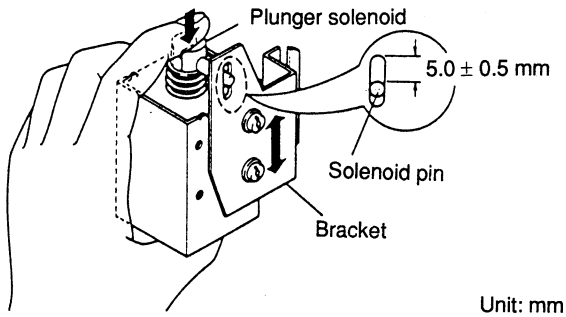



**Fig. 4-6-2. Brake Solenoid Bracket Installation**

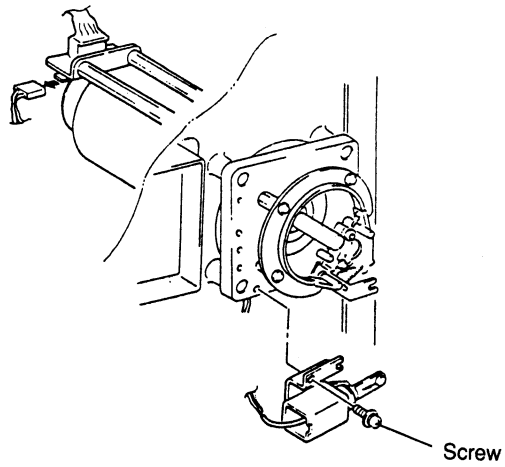



**Fig. 4-6-3. Brake Solenoid Installation**

4. While pushing the plunger solenoid by hand, attach the brake adjustment tool (VP-72) to the reel shaft with impression B outside.
5. Push the plunger solenoid by hand and adjust the brake solenoid assembly position so that the brake band is not deformed in the vicinity of "X" and "Y" in Fig. 4-6-4, and also that the space between the brake adjustment tool (VP-72) and brake band is over 0.2 mm in the overall section (Z).
   After adjustment, tighten the screw and secure the brake solenoid assembly.
6. While pushing the plunger solenoid by hand, remove the brake adjustment tool (VP-72) and attach the reel table. While pushing the reel table in the motor direction, tighten the two setscrews.

**Note:** Be careful not to bend the brake band.

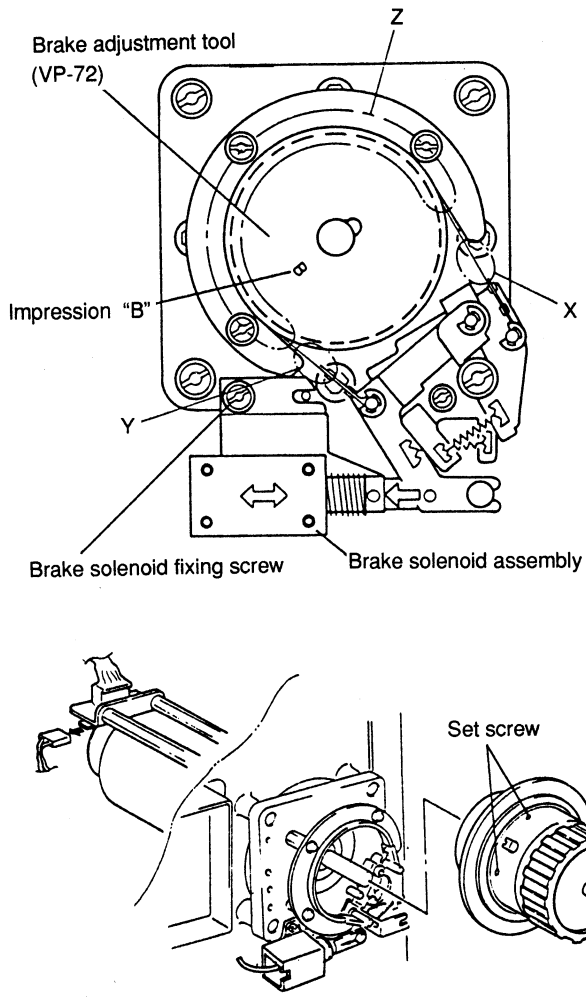



**Fig. 4-6-4. Brake Solenoid Adjustment**

## 4-7. TENSION REGULATOR ARM REPLACEMENT

### 4-7-1. S-tension Regulator Arm Replacement

#### 4-7-1-1. Removal

1. Disconnect connector CN12 from the DRV board.
2. Remove the spring from the S-tension regulator arm. Remove the S-tension regulator assembly from the sub-base (S) by removing the three cap screws.

#### 4-7-1-2. Installation

1. Pass connector CN12 through the hole of sub-base.
2. Secure the new S-tension regulator arm with three cap screws. Connect connector CN12 to the DRV board.

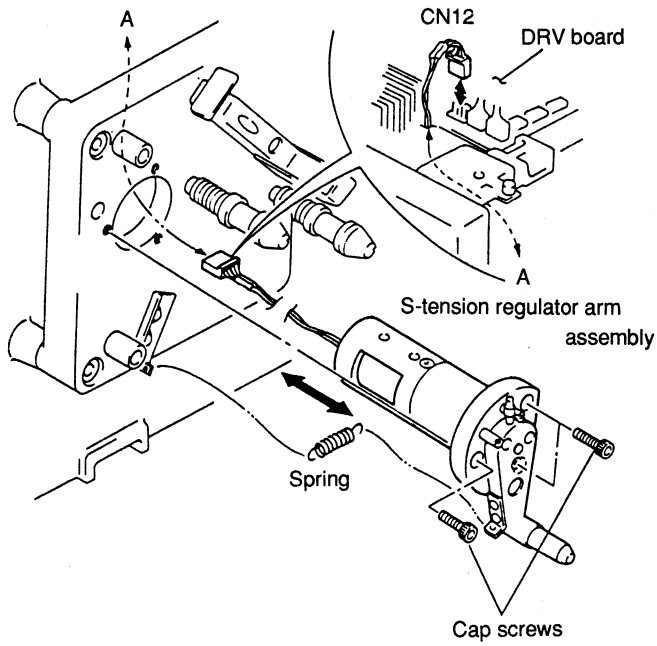



**Fig. 4-7-1. S-tension Regulator Arm Replacement**

***Note**: After replacing the S-tension regulator arm, be sure to perform Section 11.*

### 4-7-2. T-tension Regulator Arm Replacement

#### 4-7-2-1. Removal

Remove the T-tension regulator arm assembly in the same manner of section 4-7-1-1. However, disconnect connector CN11 from the DRV board when removing the T-tension regulator arm.

#### 4-7-2-2. Installation

Install the T-tension regulator arm in the same manner of section 4-7-1-2.

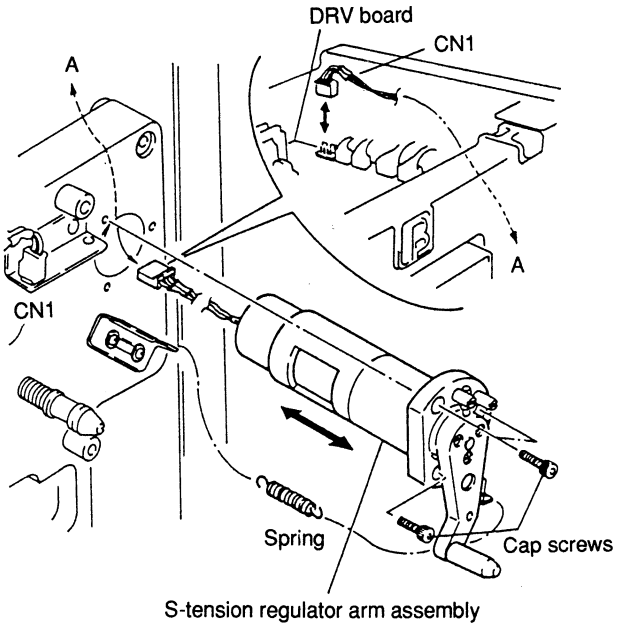



**Fig. 4-7-2. T-tension Regulator Arm Replacement**

***Note**: After replacing the T-tension regulator arm, be sure to perform Section 11.*

## 4-8. CAPSTAN MOTOR REPLACEMENT

#### 4-8-1. Capstan Motor Removal

1. Disconnect the two connectors from the stator assembly.
2. Remove the capstan motor by removing the three cap screws from the stator assembly.

#### 4-8-2. Capstan Motor Installation

1. Attach the new capstan motor straightly from the rear of the sub-base (T) and secure it with three cap screws.

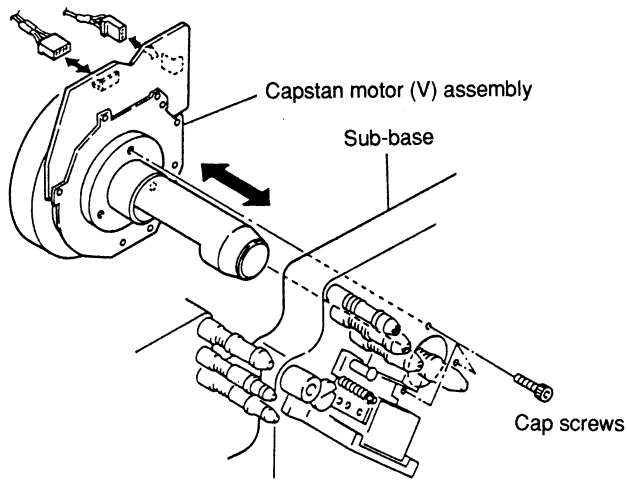



**Fig. 4-8-1. Capstan Motor Replacement**

2. Connect connector from the DRV board to the stator assembly.

***Note**: After replacing the capstan motor, be sure to perform Section 11.*

## 4-9. IMPEDANCE ROLLER HOUSING REPLACEMENT

### 4-9-1. Impedance Roller Housing Removal

1. Remove the impedance roller by loosening the screw from the rear side of this unit.

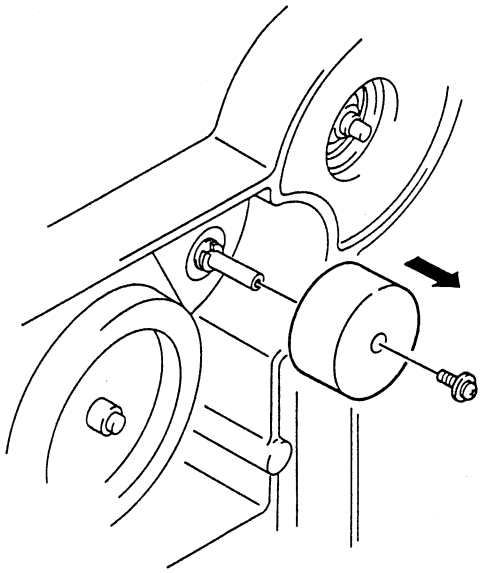


**Fig. 4-9-1. Impedance Roller Removal**

2. Loosen the two cap screws and remove the impedance roller housing assembly.

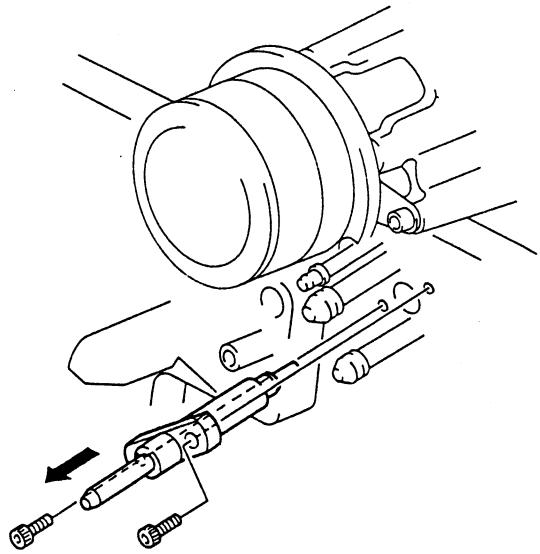


**Fig. 4-9-2. Impedance Roller Housing Replacement**

### 4-9-2. Impedance Roller Housing Installation

1. Insert the impedance roller housing assembly into the hole of the sub-chassis and tighten it with two cap screws.
2. Insert the impedance roller removed in step 1 of section 4-9-1 into shaft of impedance roller housing assembly and secure it with screw.

***Note:*** *After replacing the impedance roller housing, be sure to perform Section 11.*

## 4-10. PINCH ROLLER REPLACEMENT

### 4-10-1. Pinch Roller Removal

1. Remove the screw from the PR cap.
2. Remove the PR shaft support and remove the pinch roller assembly.

### 4-10-2. Pincn Roller Installation

1. Insert new pinch roller assembly and secure with the PR shaft support.
2. Secure the PR cap with the screw.

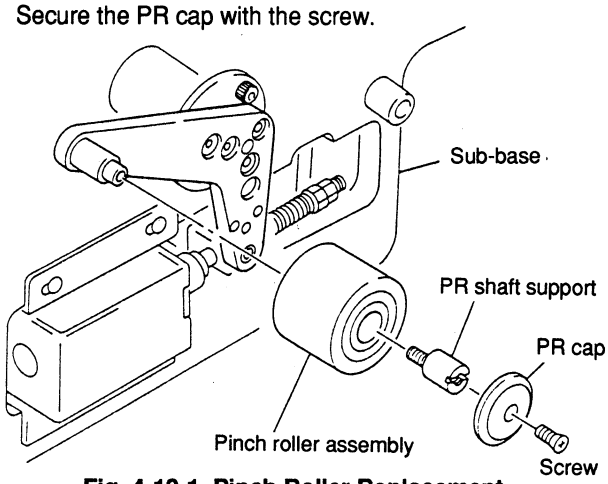



**Fig. 4-10-1. Pinch Roller Replacement**

### 4-10-3. Pinch Roller Pressure Adjustment

1. Adjust the pinch roller pressure by adjusting two (double) nuts which pushes the spring.
1. Put the screw for hooking the tension scale as shown in Fig. 4-10-2.
2. Hook the tension scale. While pulling the tension scale, measure the tension scale reading where the pinch roller stops rotating.
   If measured value is not within the following specification, adjust the pressure with two (double) nuts.
   **Specification:** 4 ± 0.4 kg

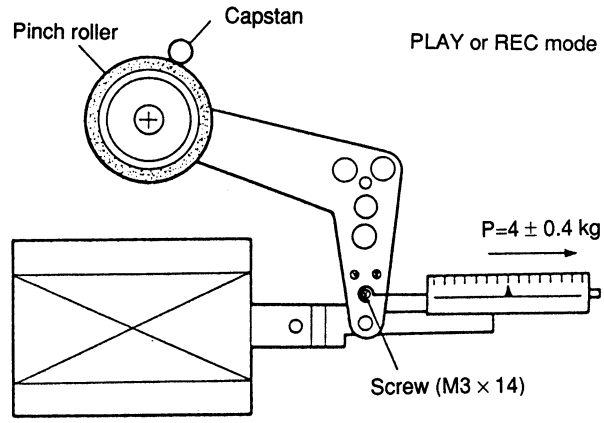



**Fig. 4-10-2. Pinch Roller Pressure Adjustment**

***Note**: After replacing the pinch roller, be sure to perform Section 11.*

## 4-11. PINCH BLOCK REPLACEMENT

### 4-11-1. Pinch Solenoid Removal

1. Disconnect the connector CN2 from the PJ-1 board.
2. Remove two nuts and the spring from the adjusting shaft.
3. Remove the solenoid base from the sub-base (T) by removing the four cap screws, and pull out the pinch solenoid together with aligning shaft.
4. Remove the solenoid pin from the solenoid base by removing the four pinch solenoid fixing screws.

### 4-11-2. Pinch Solenoid Installation

1. Assemble the solenoid pin and adjusting shaft together with the pinch solenoid and secure to the solenoid base with four screws.
2. Insert the pinch solenoid assembled in step 1 into the aligning shaft and secure it temporarily with two nuts.
3. Secure the pinch solenoid assembled in step 2 temporarily to sub-base (T) with four cap screws.

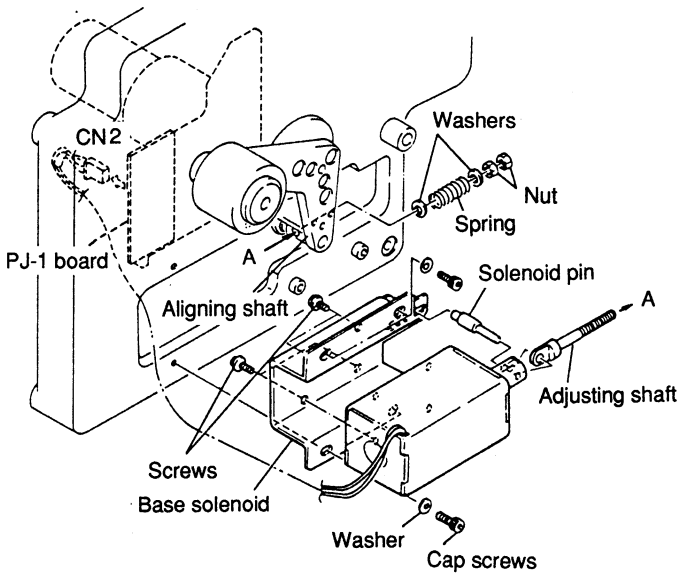



**Fig. 4-11-1. Pinch Solenoid Replacement**

### 4-11-3. Pinch Solenoid Clearance Adjustment

Adjust the position of solenoid base within the range of the slot so that the clearance between the adjusting shaft and aligning shaft becomes 0.5 to 1.0 mm.

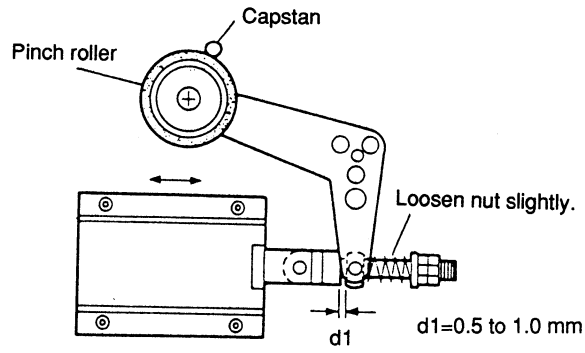



**Fig. 4-11-2. Pinch Solenoid Clearance Adjustment**

### 4-11-4. Pinch Pressure Adjustment

Perform "section 4-10-3. Pinch Roller Pressure Adjustment".

***Note**: After replacing the pinch solenoid, be sure to perform Section 11.*

### 4-11-5. Pinch Shift Motor Removal

1. Disconnect the connector CN8 from the PF board.
2. Remove the screws which secures the motor bracket and remove the pinch shift motor.
3. Remove the setscrews from the cam boss.
4. Desolder the lead wire from the pinch shift motor.
5. Remove the motor bracket and pinch shift motor with three screws.

### 4-11-6. Pinch Shift Motor Installation

1. Secure new pinch shift motor to motor bracket with three screws.
2. Solder the lead wire to the pinch shift motor.
3. Install the cam boss to the gear motor and secure it with three screws to the motor support.

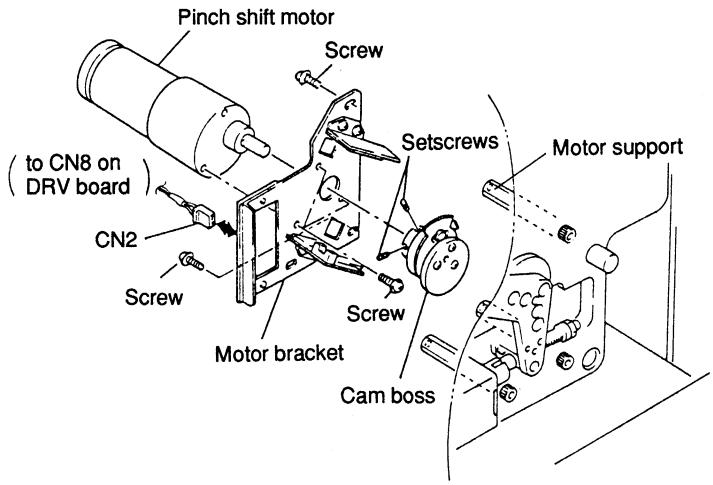



**Fig. 4-11-3. Pinch Shift Motor Replacement**

### 4-11-7. Pinch Shift Timing Adjustment

1. Turn the cam with screwdriver from the front of the main unit until the pinch roller comes closest to the capstan.
2. Adjust the gap between the capstan and pinch roller about 1 to 2 mm by sliding the motor bracket horizontally, and secure the motor bracket.

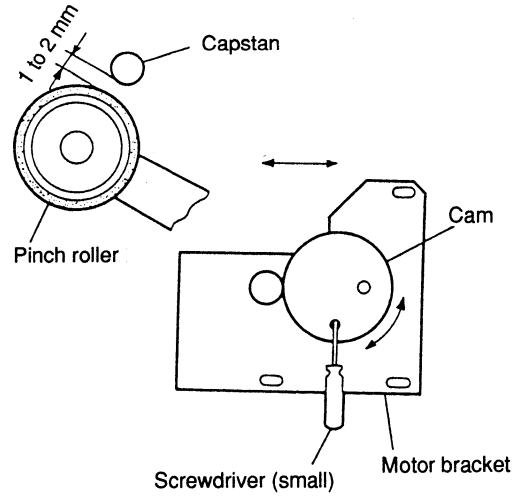



**Fig. 4-11-4. Pinch Shift Timing Adjustment**

3. When requiring the pinch shift motor OFF timing adjustment, move the sensor plate by loosening the fixing screw.

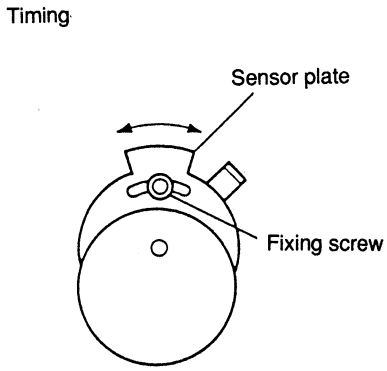



**Fig. 4-11-5. Pinch shift timing adjustment**

## 4-12. ACC HEAD REPLACEMENT

### 4-12-1. ACC Head Assembly Removal

1. Open the harness clamp and remove harness.

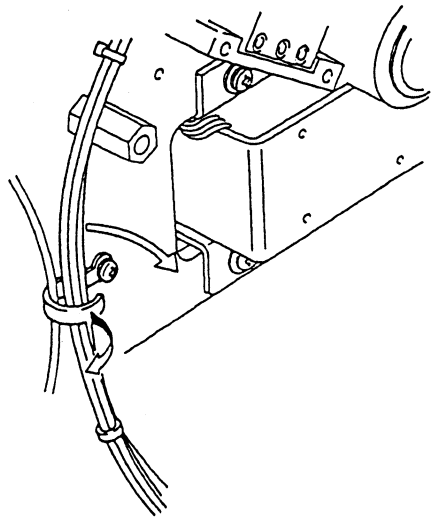


**Fig. 4-12-1. Harness Removal**

2. Disconnect CN4 from the BIAS board.
3. Remove the head cover.
4. Remove the two cap screws which fixing the sub-base at the rear of the ACC head assembly.
5. Remove two cap screws from the ACC head assembly and remove the ACC head assembly.

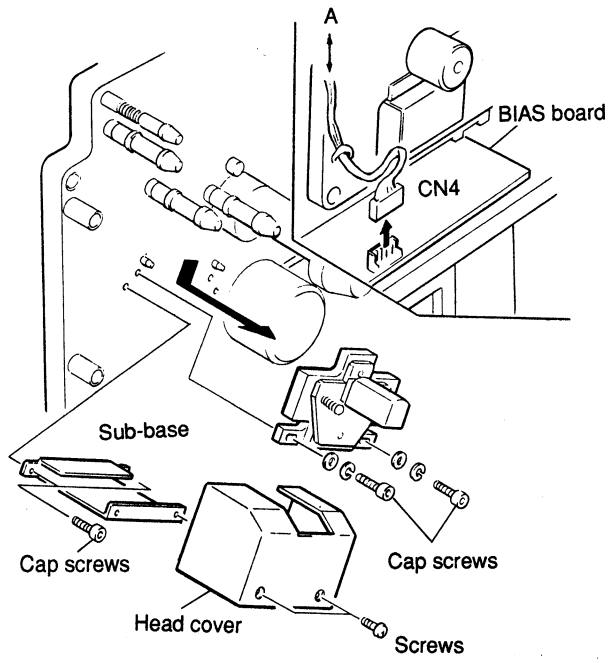



**Fig. 4-12-2. ACC Head Assembly Removal**

### 4-12-2. ACC Head Assembly Installation

1. Insert the ACC head assembly alongside the shift screw until it comes into contact with the pin coming out from the sub-base (T), and secure with two cap screws.
2. Secure the sub-base with two cap screws.

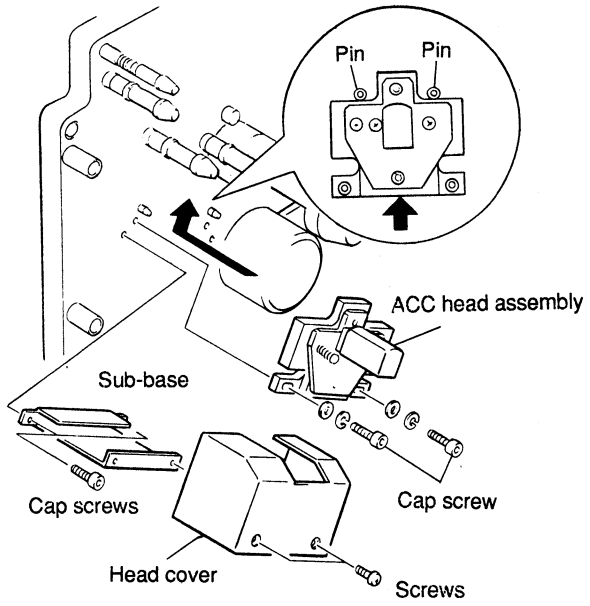



**Fig. 4-12-3. ACC Head Installation**

3. Secure the harness with clamp.

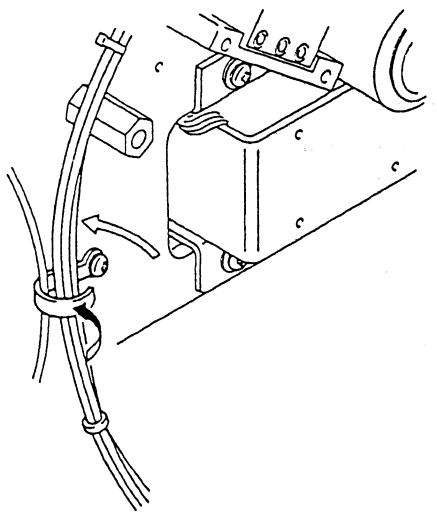


**Fig. 4-12-4. Harness Clamping**

***Note**: After replacing the ACC head assembly, be sure to perform Section 11.*

### 4-12-3. ACC Head Removal

1. Remove the ACC head assembly from the unit (see section 4-12-1).
2. Remove two screws fixing the ACC head.
   **[ MMV800/802 ]**

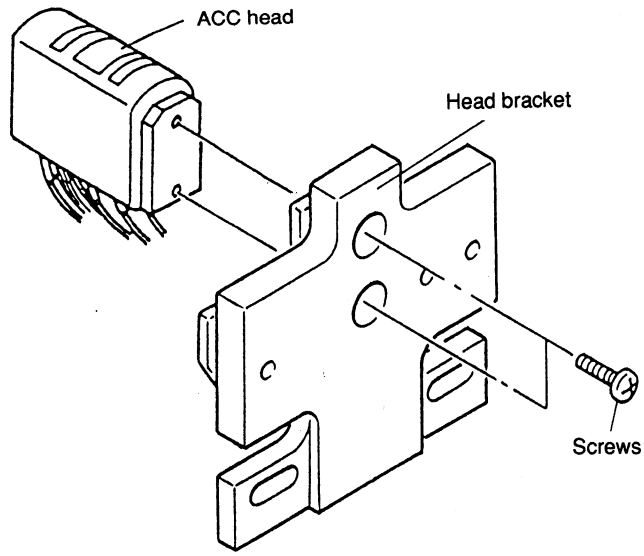



**Fig. 4-12-5. ACC Head Removal [MMV800]**

**[ MMV810 ]**

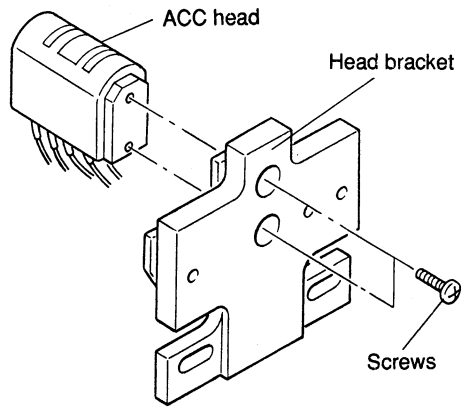



**Fig. 4-12-6. ACC Head Removal [MMV810]**

3. Cut and remove the insulation tube covering terminals of the ACC head.

**[MMV800/802]** **[MMV810]**

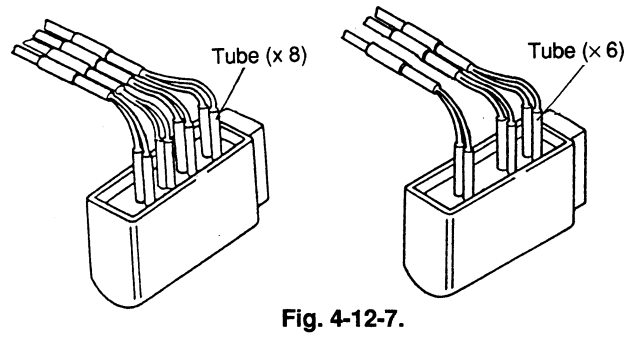



**Fig. 4-12-7.**

4. Desolder the lead wires from the ACC head.

**[MMV800/802]** **[MMV810]**

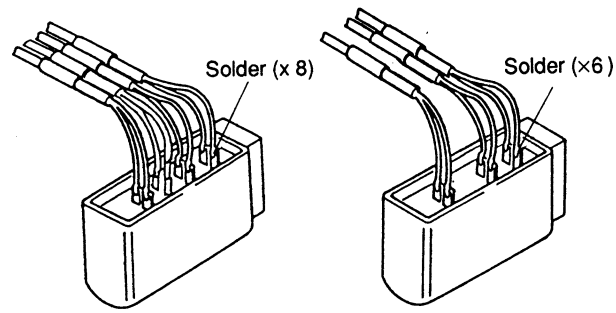



**Fig. 4-12-8.**

5. Insert the lead wires removed in step 4 into the thermal contraction tubes and solder them to the ACC head. Then cover terminals with tubes.

**[MMV800/802]** **[MMV810]**

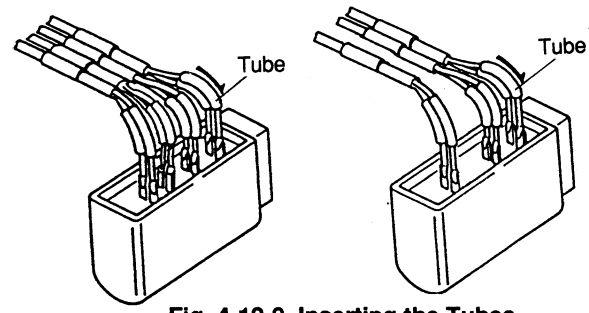



**Fig. 4-12-9. Inserting the Tubes**

**[MMV800/802]** **[MMV810]**

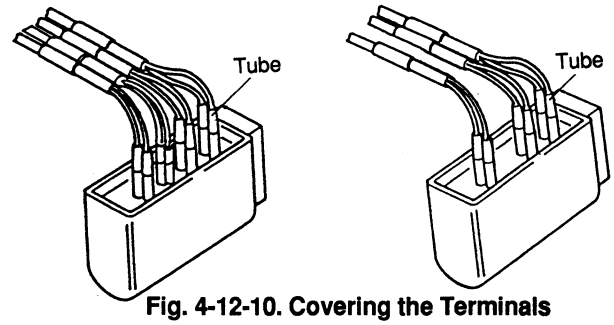



**Fig. 4-12-10. Covering the Terminals**

6. Attach the ACC head temporarily to the head bracket with two screws, and tighten the two screws after moving the head in the arrow direction.
**[ MMV800/802 ]**

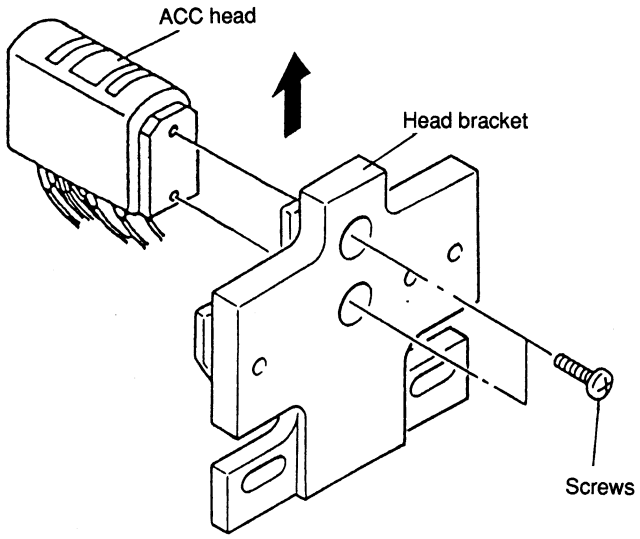



**Fig. 4-12-11. MMV800/802**

**[ MMV810 ]**

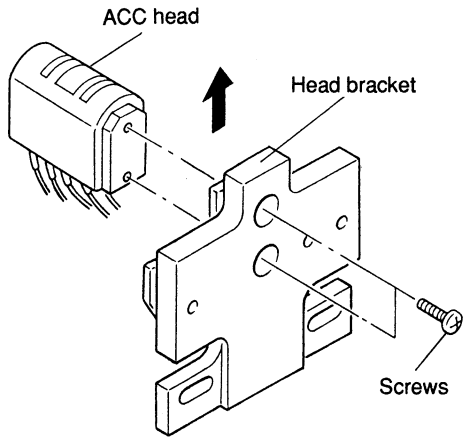



**Fig. 4-12-12. MMV810**

7. Install the ACC head assembly to the unit.

8. With perpendicular measuring tool (VP-21), perform zenith adjustment by turning the setscrew (needle of VP-21 turns clockwise) until the zenith meets the following specifications.

**Specifications:**

| | |
|---|---|
| MMV800/802: | 20 to 30 $\mu$m |
| MMV810: | 40 to 50 $\mu$m |

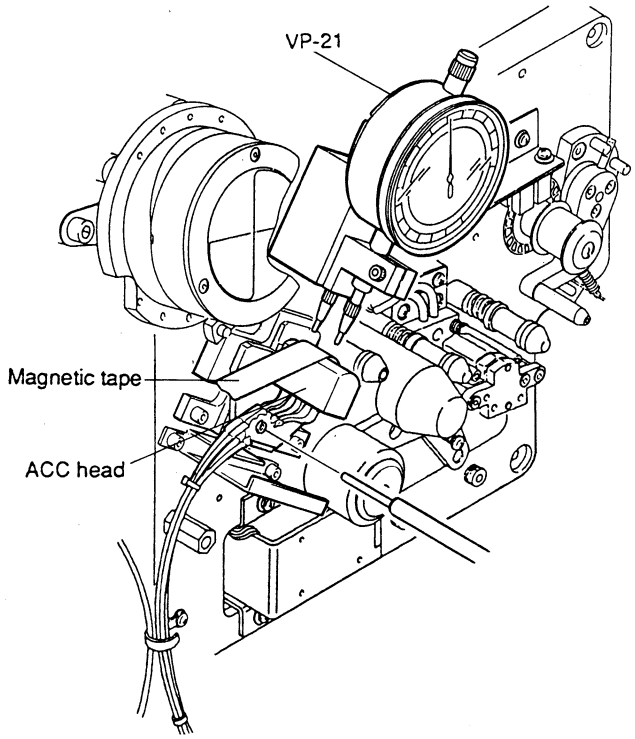



**Fig. 4-12-13. Zenith Adjustment**

**Note:** When the guide sleeves that locate in the right and left of the ACC head are the following part number (with no taper type), adjust the zenith for 40 to 50 $\mu$m.
Sleeve: Sony Part No. 2-985-297-01

**Before adjustment, be sure to calibrate the perpendicular measuring tool (VP-21) as follows.**

Place a perpendicular measuring tool (VP-21) on the height adjustment base (VP-25), and while touching the two probes to a rectangular ruler, set the needle to zero (0) by rotating the ring.

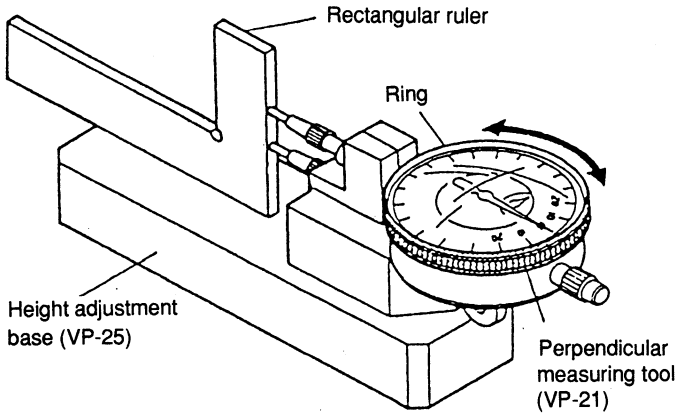



**Fig. 4-12-14. VP-21 Calibration**

**Perform zenith adjustment again after performing "section 11-1-10. ACC Head Azimuth Adjustment".**

***Note:*** *After replacing the ACC head assembly, be sure to perform Section 11.*

## 4-13. ERASE HEAD REPLACEMENT

1. Disconnect CN13 from the BIAS board.
2. Remove two cap screws from the head base.
3. Install the erase head to the prescribed position of the sub-base and secure it with two cap screws
4. Connect CN13 to the BIAS board.

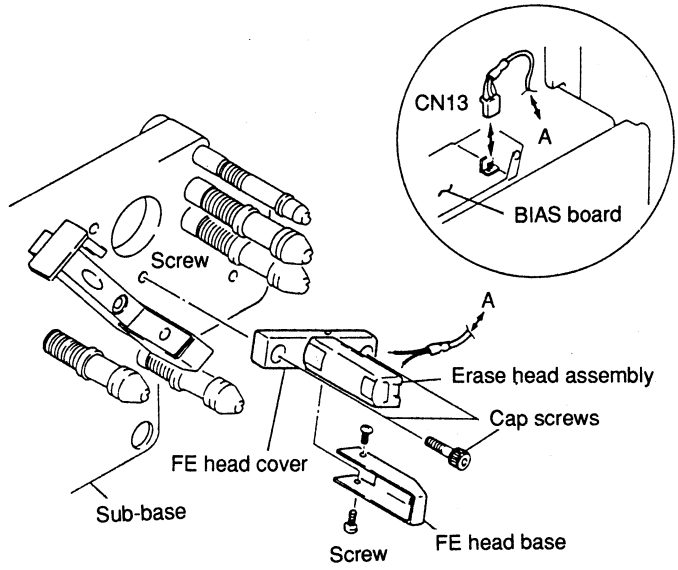



**Fig. 4-13-1. Erase Head Replacement**

***Note:*** *After replacing the erase head assembly, be sure to perform Section 11.*

## 4-14. T-REEL TABLE REPLACEMENT

### 4-14-1. T-reel Table Replacement

This section describes only T-side reel brake replacement, therefore perform the same replacement procedures when replacing the S-side reel table.

1. Loosen the two setscrews from the reel table, and pull out the reel table from the reel shaft.
2. While pushing the plunger of the brake solenoid, insert the reel table into the reel shaft.

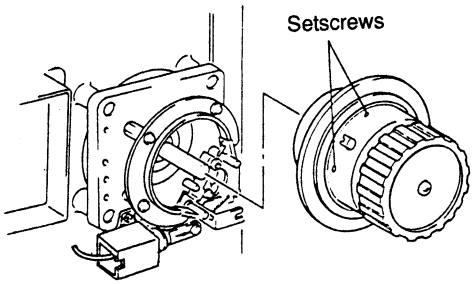



**Fig. 4-14-1. T-reel Table Replacement**

### 4-14-2. T-reel Table Height Adjustment

1. Remove the cover and reel washer.
2. Loosen the setscrews A and B.
3. Adjust the setscrew C while lightly pushing the reel table toward the arrow direction.
4. Adjust the gap between the upper side of boss and reel flange for 35 ± 0.3 mm.
5. Tighten the setscrews A and B, attach the reel washer and cover.

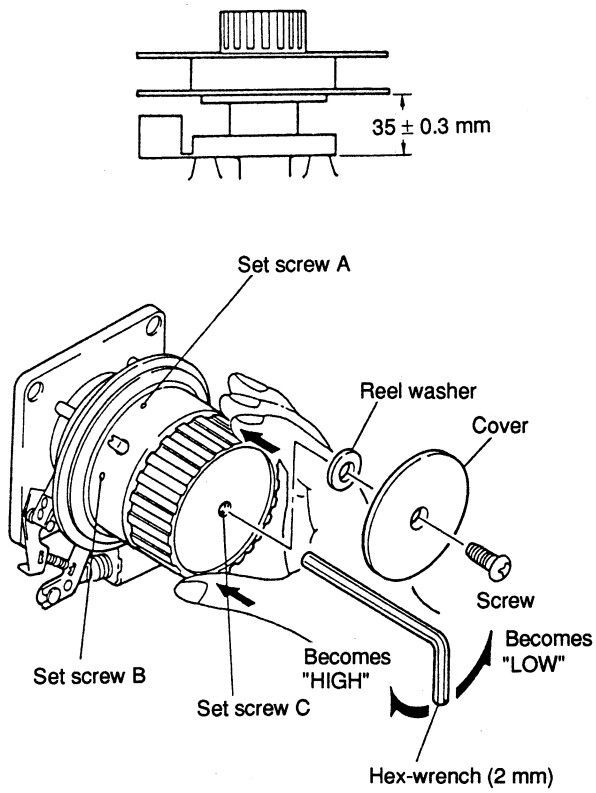


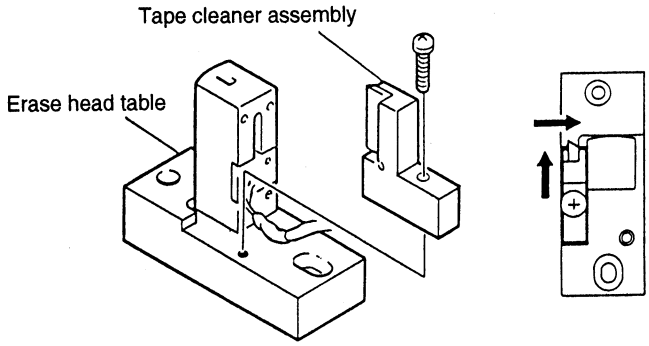

**Fig. 4-14-2. T-reel Table Height Adjustment**

***Note**: After replacing the reel table, be sure to perform Section 11.*

## 4-15. CLEANING BLADE REPLACEMENT

### 4-15-1. Tape Cleaner Assembly Replacement

1. Remove the following parts:
   - S-side tape stopper assembly
   - Erase head table
   - Erase head cover
2. Remove the screw and remove the tape cleaner assembly.
3. Place the new tape cleaner assembly onto the erase head table, and secure it temporarily with screw.
4. While pushing the tape cleaner assembly in the arrow direction, tighten the screw.
5. Make assembling in the reverse order of step 1.



# SECTION 5
# PREPARATION FOR ADJUSTMENT

## 5-1. EQUIPMENT REQUIRED

1. Color monitor
2. Oscilloscope which incorporates delay of over 50 MHz
3. Frequency counter (Over 5 digits)
4. NTSC pattern generator
5. Digital voltmeter
6. Tester (20 kΩ/V, 10 MΩ/V)
7. Audio generator
8. Distortion meter
9. Spectrum analyzer
10. Level meter
11. Alignment tape VP800 (NTSC-SP)
12. Alignment tape VP810 (NTSC-EP)
13. Alignment tape VP820 (PAL/SECAM)

## 5-2. ELECTRICAL ADJUSTMENT BOARD (VP-106)

This board contains the following functions and is used for inserting into a card slot of the unit.

1. **Multi-burst oscillator** (for normal audio adjustment)
   Output connector: CN1 (BNC)
   Output level: Adjustable with ⊘ RV2 (Max.: +4 dBm or more)
   When switch SW3 is set to lower position, output level can be decreased for 10 dB. Normally set SW3 to upper position.
   Oscillating frequency: When ROM No.90002-02-01 has been installed, oscillating frequency can be set manually with SW1 and SW2 .

| SW1 | SW2 | Oscillating Frequency | Use |
|---|---|---|---|
| ON | ON | 100 Hz+400 Hz+1 kHz+3 kHz+8 kHz+10 kHz | VHS NTSC SP, VHS PAL |
| ON | OFF | 100 Hz+400 Hz+1 kHz+3 kHz+5 kHz | VHS NTSC EP |
| OFF | ON | 100 Hz+333 Hz+1 kHz+3 kHz+7 kHz+10 kHz | βII NTSC |
| OFF | OFF | 400 Hz | |

   Adjustment: Adjust ⊘ RV1 so that TP1 is 65.5 kHz. (Oscillating frequency can be controlled by ⊘ RV1.)

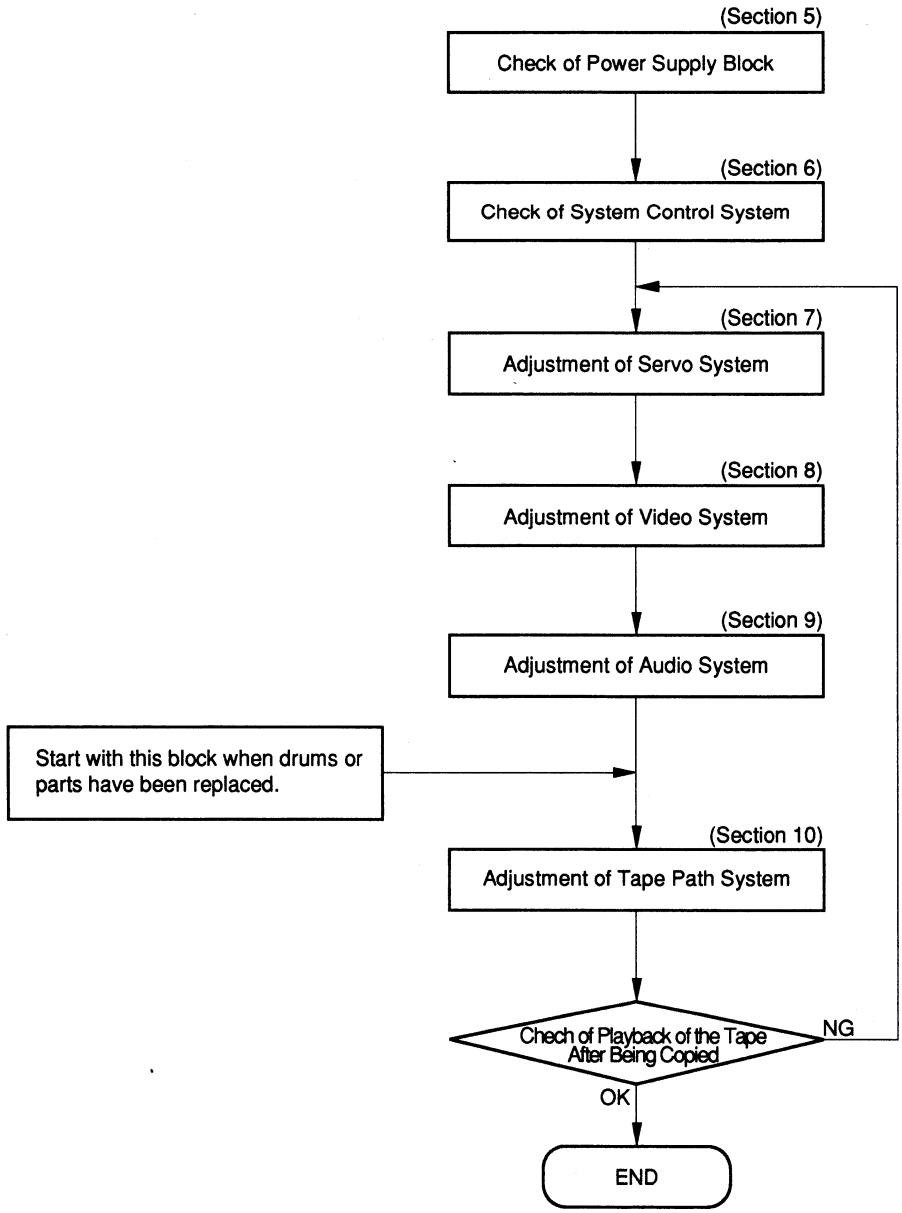
2. **1 MHz, 4 MHz sine-wave oscillator** (for video head optimum recording current measurement)
   Output connector: CN2 (BNC)
   Output level: Adjustable with ⊘ RV3 [1MHz] and ⊘ RV4 [4 MHz] (Max.: 2 Vp-p or more)
   Oscillating frequency: 1 MHz or 4 MHz selectable with SW4

3. **Normal audio playback amplifier** (for monaural ACC head adjustment)
   Playback amplifier for adjusting monaural normal audio with stereo PB head.
   Input select: Set SW5 to ON position.
   Input connector: Pins 32 and 33 of card edge connector
   Output point: TP10 (front of the board)
   Output level: Adjustable with ⊘ RV11
   Equalizer: Adjustable with ⊘ RV10

**Note:**
When using only the functions 1 and 2 above, any slot is available. When using the function 3, insert the "electrical adjustment board (VP-106) into the slot specified in the service manual.
Morever, when the function 3 is not used, set the input select switch SW5 to OFF position.

## 5-3. ADJUSTMENT PROCEDURE

Perform the adjustments in the following order.



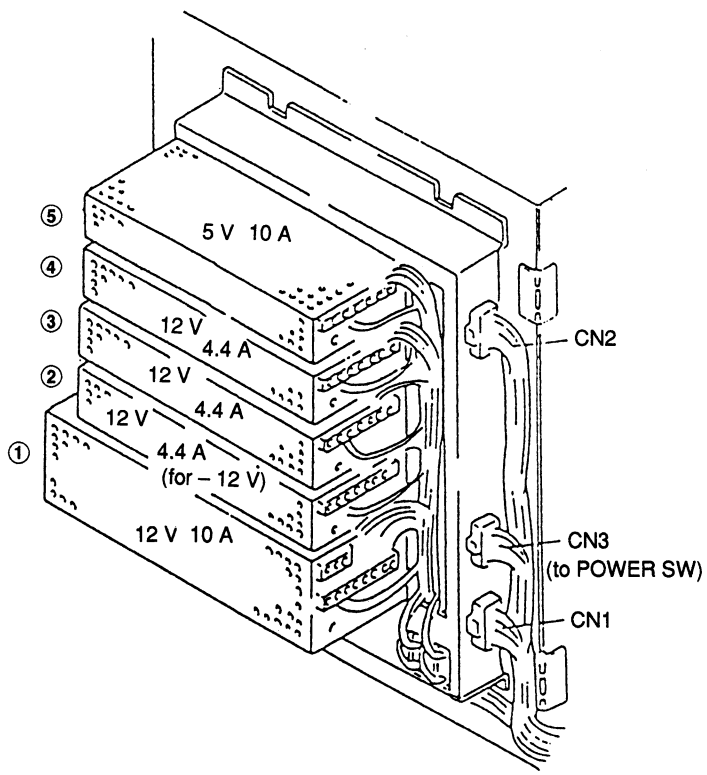

**Note:** Be sure to restore the board switches to the factory set positions after the adjustments of the respective items have been completed unless otherwise specified.

## 5-4. POWER SUPPLY BLOCK CHECKS

Insert the extender board into the card rack, connect scope probe to TPs on the board and measure the voltage.
Perform the voltage adjustment with potentiometer of the respective switching regulators.

Equipment: Digital voltmeter
Mode: STOP

1. From the rear of the card rack, measure the voltage of connector CN104 on the MBD board.
   (GND = Pins 8, 9 and 10 of CN104)
   MBD: Pin 6 of CN104 = +12 ± 0.05 V
   ⊘ Switching Regulator ①
   MBD: Pin 7 of CN104 = –12 ± 0.05 V
   ⊘ Switching Regulator ②
2. Insert the extender board into the vacant slot of the card rack.
   Extender board: TP +12 V = +12 ± 0.05 V
   ⊘ Switching Regulator ③
   Extender board: TP –12 V = –12 ± 0.05 V
   ⊘ Switching Regulator ④
   Extender board: TP +5 V = +5 ± 0.05 V
   ⊘ Switching Regulator ⑤



# SECTION 6
# SYSTEM CONTROL CHECKS

## 6-1. POWER ON CHECK

1. Make sure the lamps of the AUTO and AUTO STOP buttons are lit when the power supply switch is turned on.
2. Make sure all the display indications are "0".

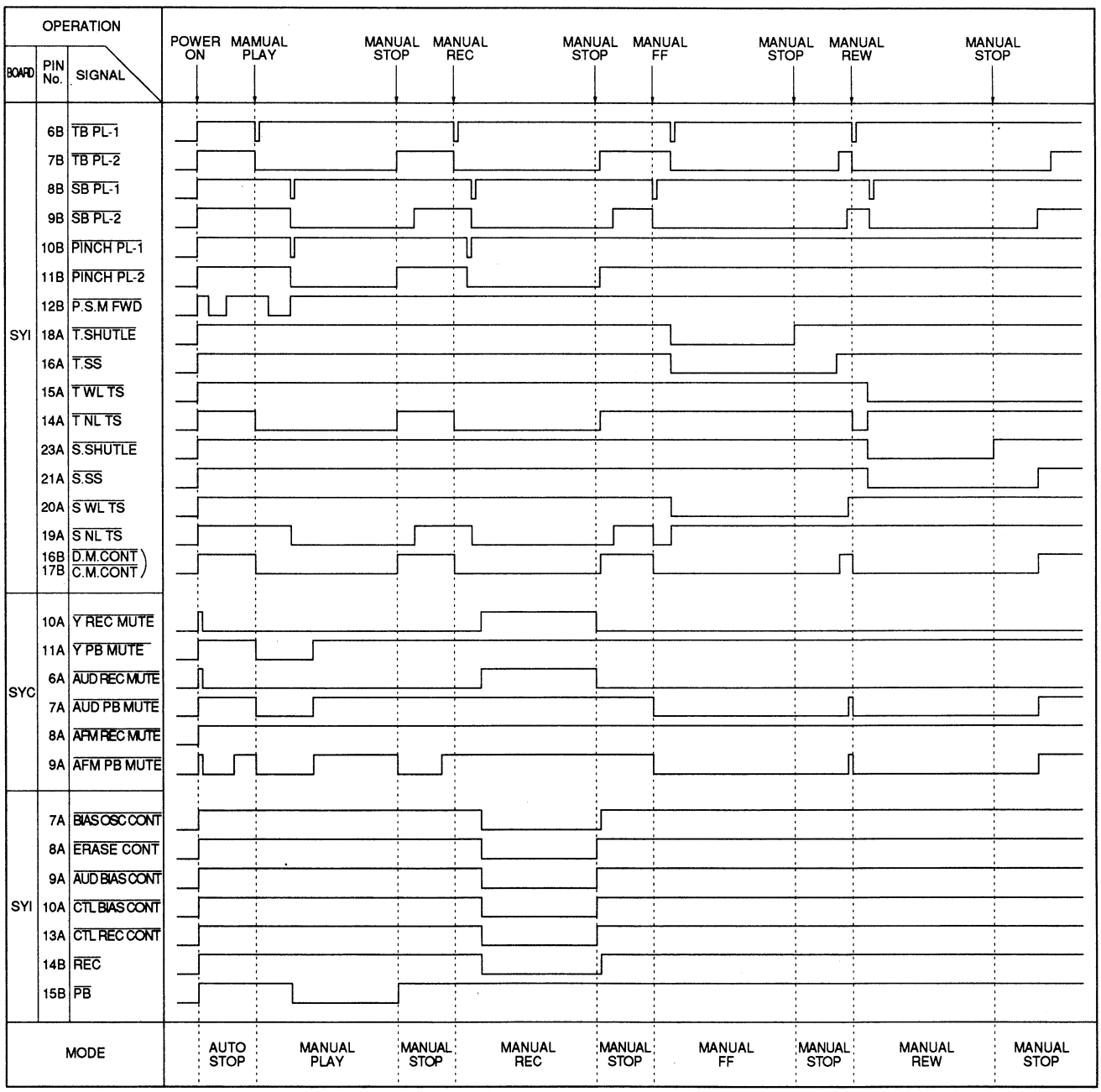
## 6-2. REMOTE CONTROL CLOCK ADJUSTMENT

Equipment: Frequency counter
Mode: STOP
TP3/RP Board = 200 ± 5 kHz
⊘ RV1/RP Board

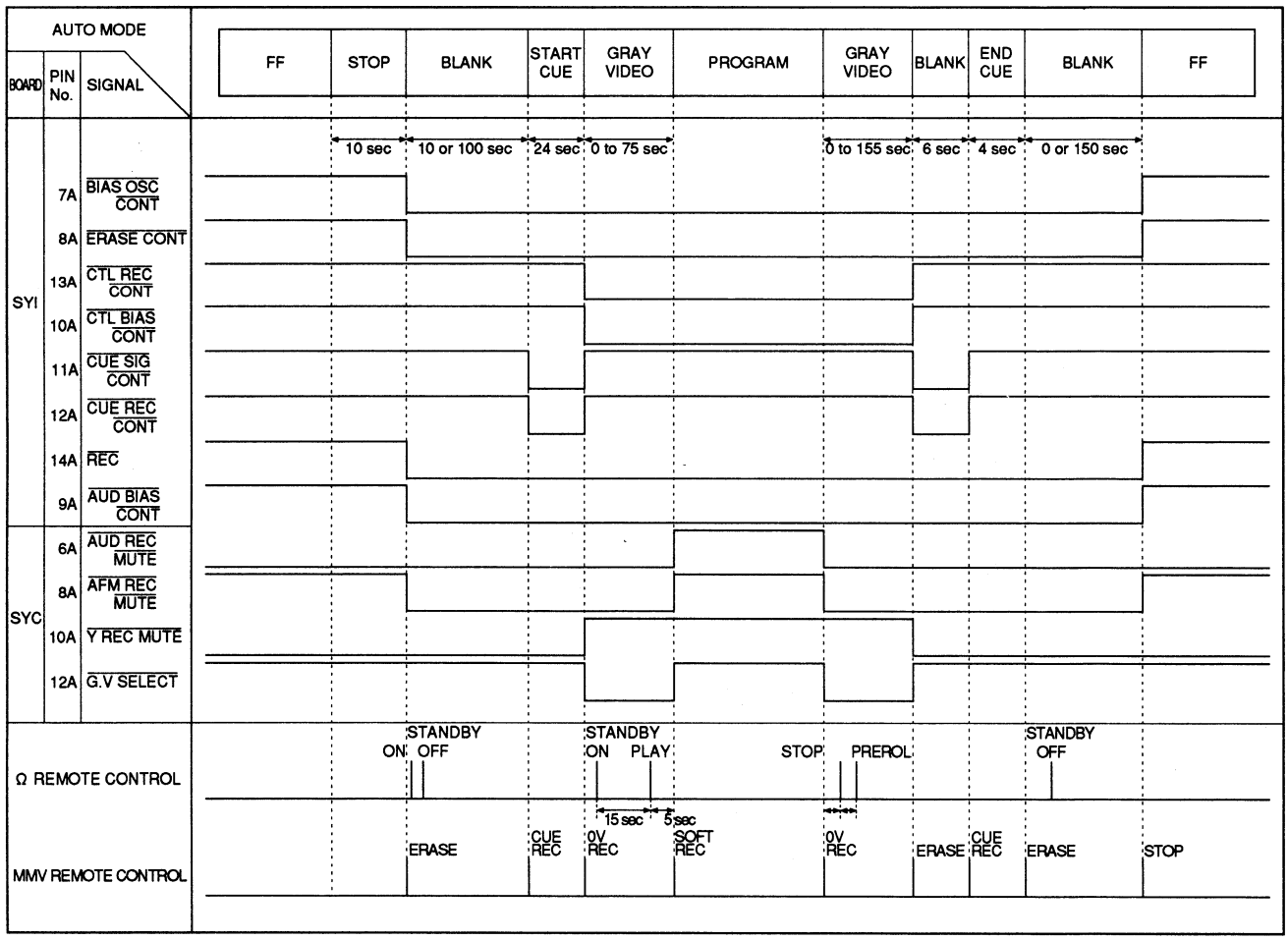
## 6-3. SYSTEM CONTROLLER TIMING CHART

**[Preparation]**
Before checking the signal systems with reference to the timing chart, be sure to install all the boards into the card rack.

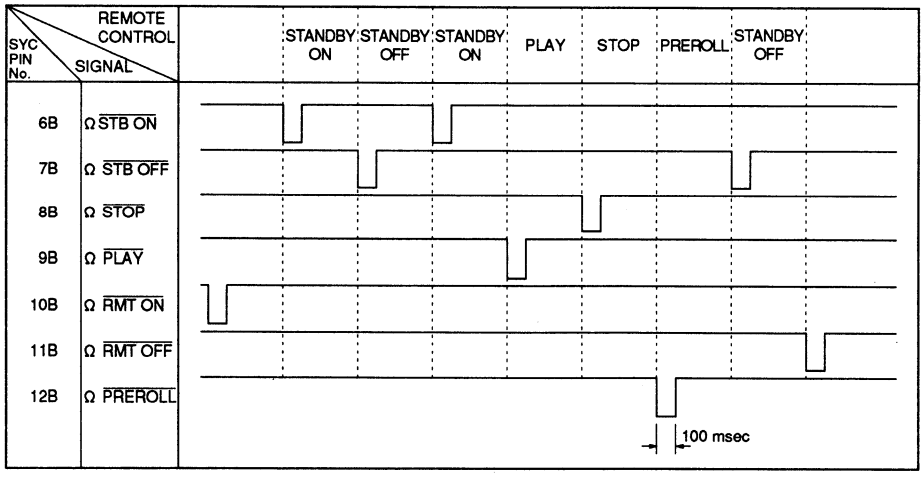
### 6-3-1. Manual Operation Timing Chart



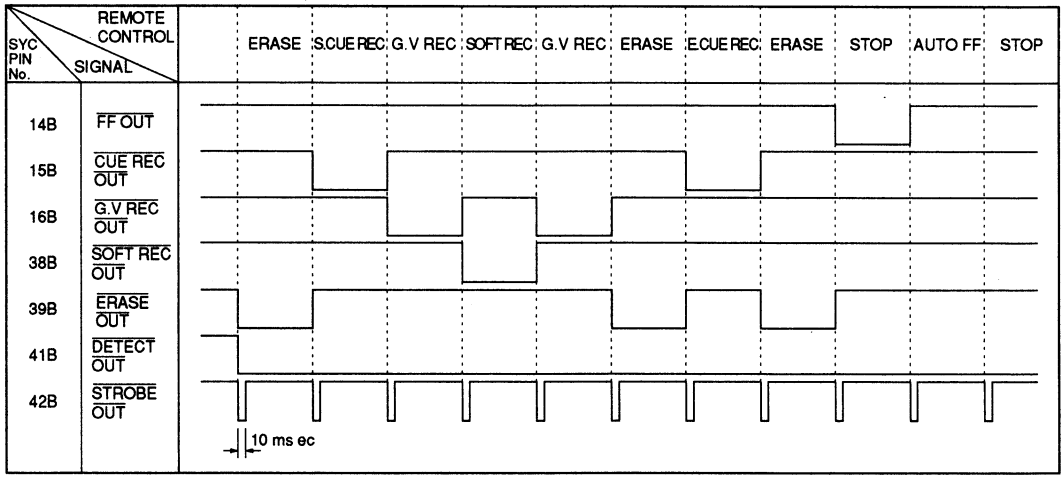
## 6-3-2. Automatic Recording Timing Chart



### 6-3-3. BVH Remote Controller Timing Chart

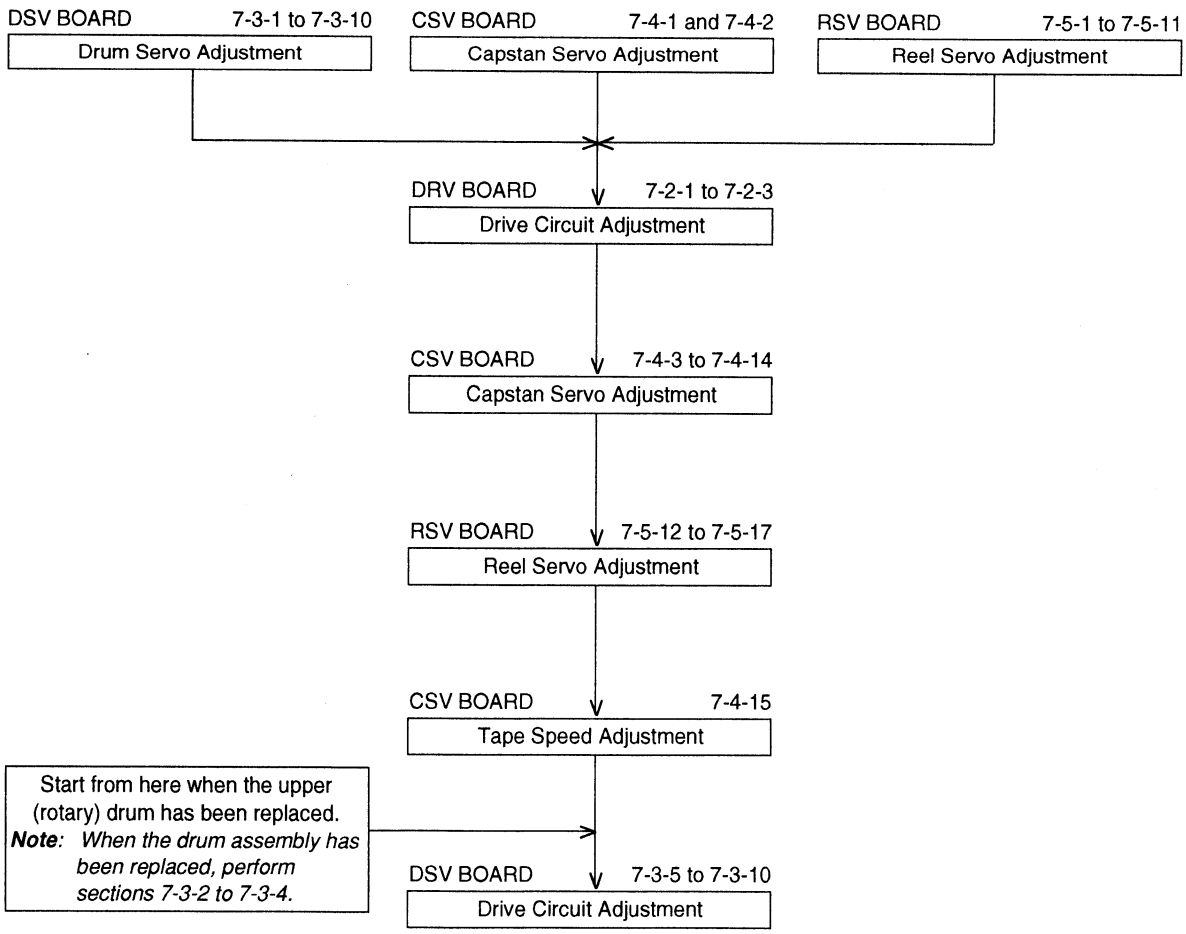



### 6-3-4. MMV Remote Controller Timing Chart



# SECTION 7
# SERVO SYSTEM ADJUSTMENTS

## 7-1. SERVO SYSTEM ADJUSTMENT PROCEDURE



## 7-2. DRV BOARD ADJUSTMENT

The DRV board is comprised of the drive circuit, which is relevant to the motor and plunger, and the sensor input circuit.

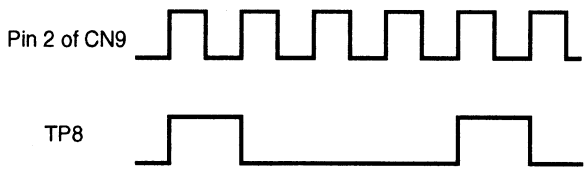
### 7-2-1. Tape Sensor Operation Check

Check the tape sensor LED D5 is lit when a tape is loaded.

### 7-2-2. Counter Roller FG Check

Equipment: Oscilloscope
Mode: STOP

1. While turning the counter roller with hand, check that the signal at TP8 is 1/4 as against pin 2 of CN9.




2. While turning the counter roller clockwise or counterclockwise with hand, check the logic level at TP9.
   Clockwise: TP9 = "High level"
   Counterclockwise: TP9 = "Low level"

### 7-2-3. Reel Motor Driver Offset Adjustment

Equipment: Digital voltmeter
Mode: STOP

1. Take-up Reel Motor Offset Adjustment
   Connect DVM across TP4 and TP5 and perform the following adjustment.
   TP4 / TP5 = 0 ± 0.05 V
   ⊘ RV1

2. Supply Reel Motor Offset Adjustment
   Connect DVM across TP6 and TP7 and perform the following adjustment.
   TP6 / TP7 = 0 ± 0.05 V
   ⊘ RV2

## 7-3. DSV BOARD ADJUSTMENT

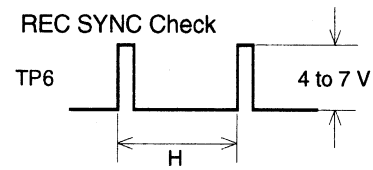
The drum servo circuit mainly servo controls the rotation of the drum and also generates the REC SW pulse and RF SW pulse.

**[Preparation]**
- Input the color bar signal to VIDEO IN connector of the connector panel.

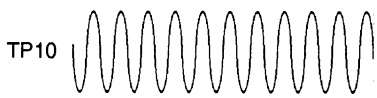
### 7-3-1. Input Signal Check

Equipment: Oscilloscope
Mode: STOP
Switch Setting: MMV800/810 : SW1 = EIA position
MMV802 : SW1 = CCIR position

1. REC SYNC Check




2. Subcarrier Check

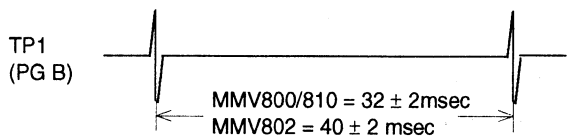



MMV800/810 = 3.58 MHz
MMV802 = 4.43 MHz

### 7-3-2. FIX Speed Adjustment

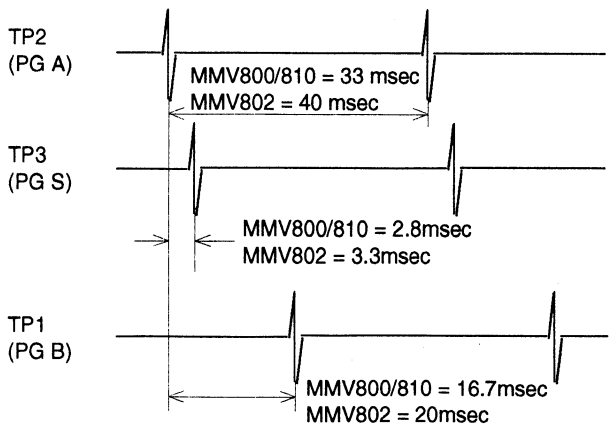
Equipment: Oscilloscope
Mode: STOP
Switch setting: SW2 (FIX SPEED) ⇒ ADJ position

1. Speed Adjustment




⊘ RV4

2. PG output Check

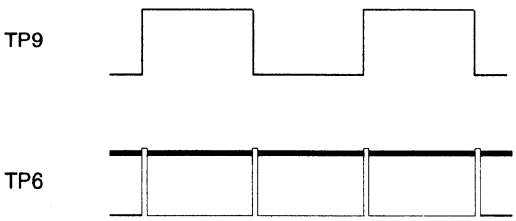



3. Return SW2 (FIX SPEED) to NOR position.

### 7-3-3. 1/2 VD Check

Equipment: Oscilloscope
Mode: STOP

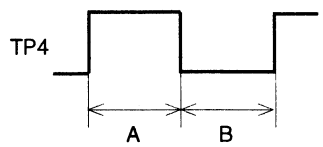
Be sure to check that TP9 and TP6 are synchronized for.




### 7-3-4. Free Speed Adjustment

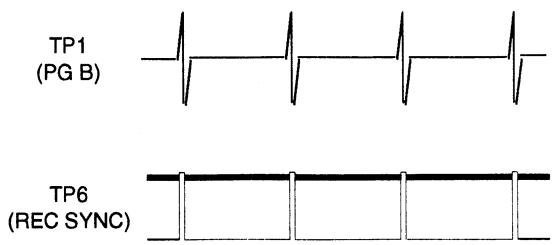
Equipment: Oscilloscope
Mode: STOP

1. Short-circuit the edge connector pin 29 to ground with lead wire.
2. Connect scope probe to TP4 and perform the following duty adjustment.




**Specifications**: A = B (⊘ RV3)

3. Remove the lead wire connected in step 1.
4. Load the alignment tape (VP800 for MMV800, VP810 for MMV810, VP820 for MMV802), play it back with PLAY mode, and check that the waveforms at TP1 (PG B) and TP6 (REC SYNC) are locked.

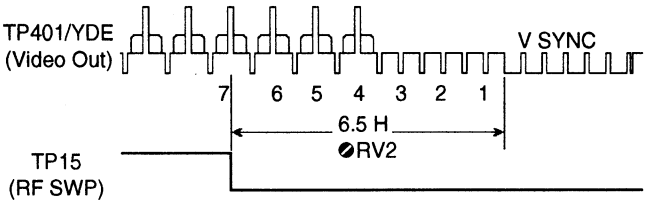



### 7-3-5. RF Switching Pulse Adjustment

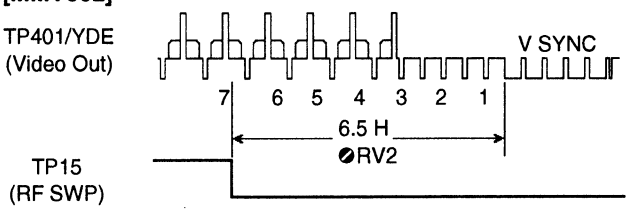
Measuring instrument: Oscilloscope
Alignment tape: VP800 (MMV800)
VP810 (MMV810)
VP820 (MMV802)
Signal source: Color bars of alignment tape
Mode: PLAY

1. Lock Phase Adjustment

**[MMV800/810]**

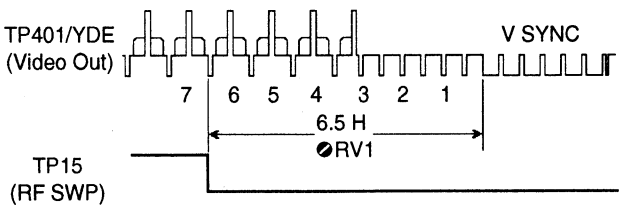



**[MMV802]**

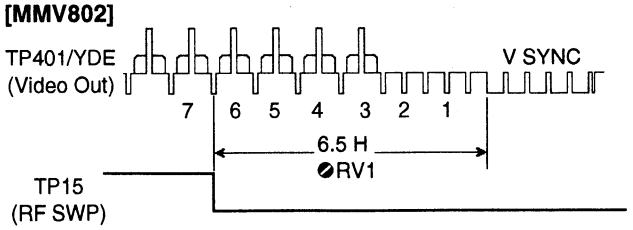



2. RF Switching Pulse Duty Adjustment

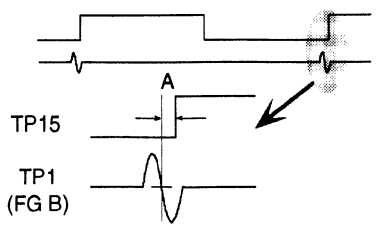
**[MMV800/810]**




**[MMV802]**




3. Lock Phase Check
Check the relative phase between TP1 (PG B) and TP15 (SW pulse).

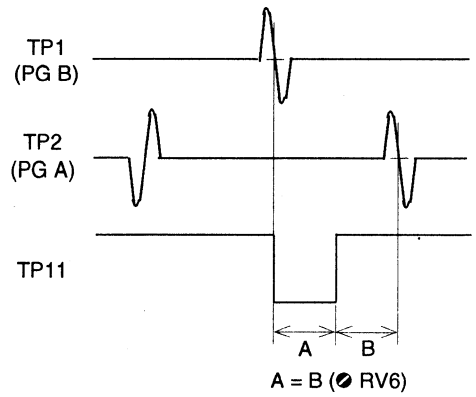



A = 1400 ± 100 nsec(MMV800/810)
A = 1650 ± 100 nsec(MMV802)

### 7-3-6. REC Switching Pulse Adjustment

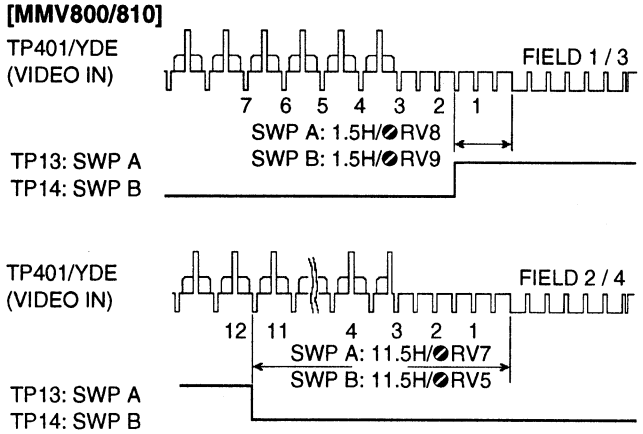
Equipment: Oscilloscope
Mode: REC
Input signal: Color bars

1. Delayed PG B Adjustment

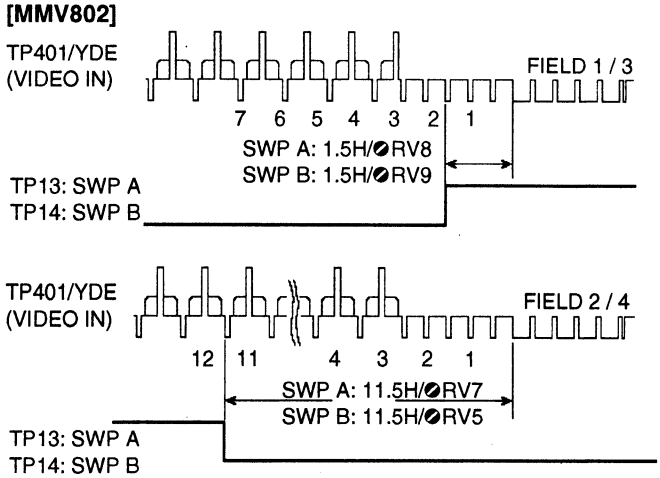



2. REC Switching Pulse Adjustment

**[MMV800/810]**




**[MMV802]**



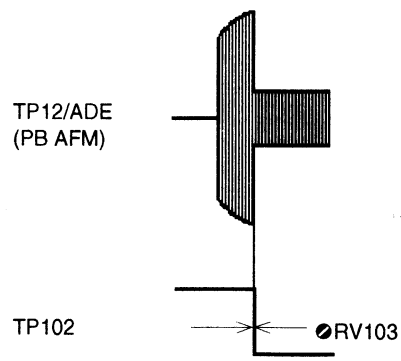

### 7-3-7. RF Switching Pulse Timing Check

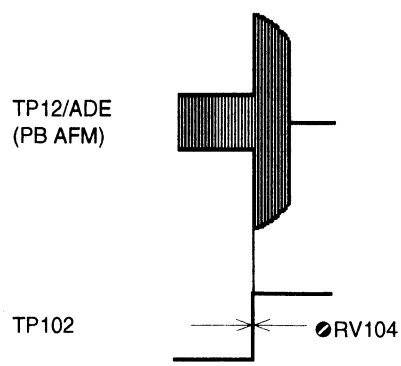
1. Connect CH-1 of scope probe to TP15.
2. Connect CH-2 of scope probe to TP9 and check that the switching pulse at TP15 is locked with TP9 (1/2 VD).
3. Connect CH-2 of scope probe to TP1 and check that the switching pulse at TP15 is locked with TP1 (Drum PG B).

### 7-3-8. AFM REC Switching Pulse-1 Adjustment

Equipment: Oscilloscope
Mode: REC ⇒ PLAY
Switch setting: Hi-Fi AUDIO/control panel ⇒ ON
Input signal: Video: 50% FLAT FIELD
Audio: No signal

1. Set the following switches to the specified position.
   **MMV800/802**
   SW1(RSW)/AMD: OFF
   SW2(A-CH)/AMD: OFF
   SW3(B-CH)/AMD: ON
   **MMV810**
   S1(RSW)/AMD: OFF
   S2(A-CH)/AMD: OFF
   S3(B-CH)/AMD: ON
2. Set ⊘RV101 to maximum counterclockwise position and ⊘ RV102 to maximum clockwise position.
3. Make a short recording and rewind the tape.
4. Set switch SW1 (S1 for MMV810) to ON position and enter play mode.
5. REC Switching Position Adjustment

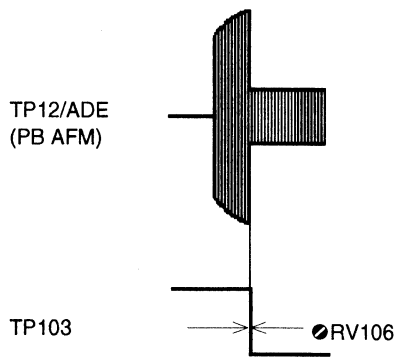


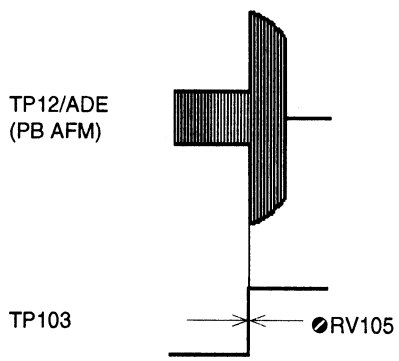



### 7-3-9. AFM REC Switching Pulse-2 Adjustment

Equipment: Oscilloscope
Mode: REC ⇒ PLAY
Switch setting: Hi-Fi AUDIO (control panel) ⇒ ON
Input signal: Video: 50% FLAT FIELD
Audio: No signal

1. Set the following switches to the specified position.
   **MMV800/802**
   SW1(RSW)/AMD: OFF
   SW2(A-CH)/AMD: ON
   SW3(B-CH)/AMD: OFF
   **MMV810**
   S1(RSW)/AMD: OFF
   S2(A-CH)/AMD: ON
   S3(B-CH)/AMD: OFF
2. Set ⊘RV101 to maximum clockwise position and ⊘RV102 to maximum counterclockwise position.
3. Make a short recording and rewind the tape.
4. Set switch SW1 (S1 for MMV810) to ON position and enter play mode.
5. REC Switching Position Adjustment

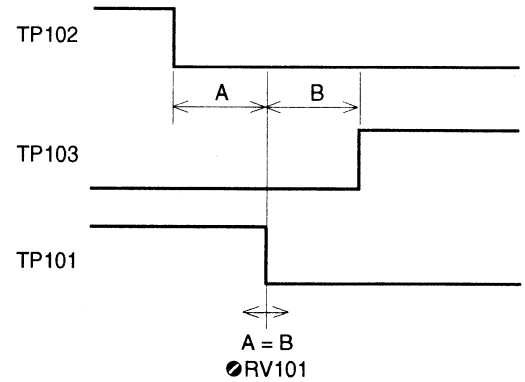


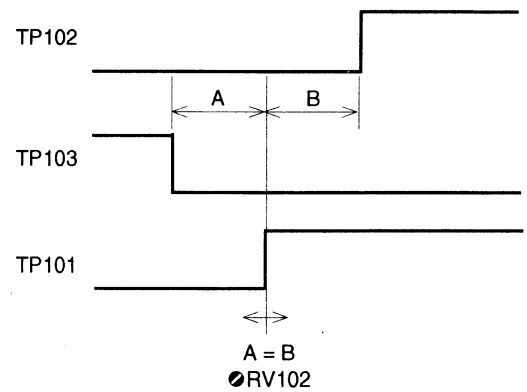

### 7-3-10. AFM RF Switching Pulse Adjustment

Equipment: Oscilloscope
Mode: PLAY

1. Falling Timing Adjustment




2. Rising Timing Adjustment



## 7-4. CSV BOARD ADJUSTMENT

This board consists of the capstan servo circuit and the CTL recording/playback circuit.

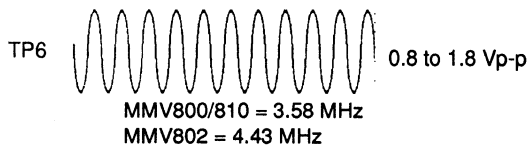
**[Preparation]**

- Input the color bar signal to VIDEO IN connector of the connector panel.

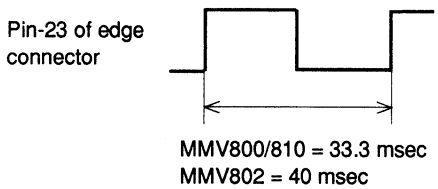
### 7-4-1. Input Signal Check

Equipment: Oscilloscope
Mode: STOP

1. Subcarrier Check




2. 1/2 VD Check




### 7-4-2. Reference Voltage Adjustment

Equipment: Digital voltmeter
Mode: STOP

**Specification:** TP16 = 6 ± 0.2 V (⊘ RV12)

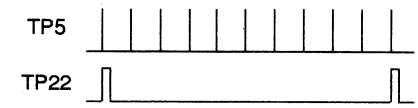
### 7-4-3. FG Output Check

Equipment: Oscilloscope
Frequency counter
Mode: STOP
Switch setting: SW2 (FIX SPEED) = ADJ position
SW202: = A (MMV800)
3 (MMV810)
8 (MMV802)

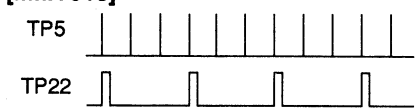
1. Speed Adjustment
TP1 = 300 Hz / ⊘ RV4 (MMV800)
100 Hz / ⊘ RV4 (MMV810)
210 Hz / ⊘ RV4 (MMV802)

2. Frequency Division Check

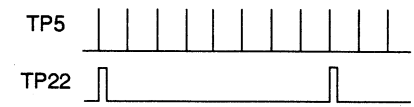
**[MMV800]**




**[MMV810]**

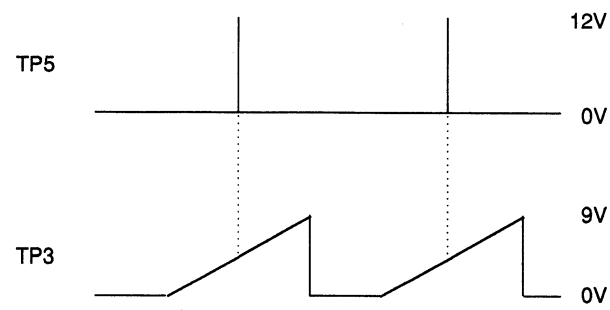



**[MMV802]**




### 7-4-4. Speed Loop Adjustment

Equipment: Oscilloscope
Digital voltmeter
Mode: STOP
Switch setting: SW2 = ADJ position
SW201 = EP position (MMV810)
SP position (MMV802)




TP4 = 6 ± 0.2V / ⊘ RV201

### 7-4-5. Offset Current Adjustment

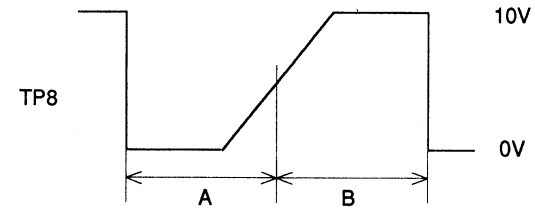
Equipment: Frequency counter
Mode: REC
Switch and control setting:
SW2 = FIX position
SW204 = TEST position
MMV810/802 only: ⊘RV3 = maximum CCW

**Specification:**
TP1 = 300 Hz / ⊘ RV203 (MMV800)
100 Hz / ⊘ RV204 (MMV810)
210 Hz / ⊘ RV204 (MMV802)

### 7-4-6. Phase loop adjustment

Equipment: Oscilloscope
Frequency counter
Mode: REC
Switch setting: SW2 = FIX position
SW204 = TEST position

| | MMV800 | MMV810 | MMV802 |
|---|---|---|---|
| SW4 | 7 | 3 | 6 |
| SW5 | 3 | 6 | 3 |
| SW6 | 4 | 1 | 8 |

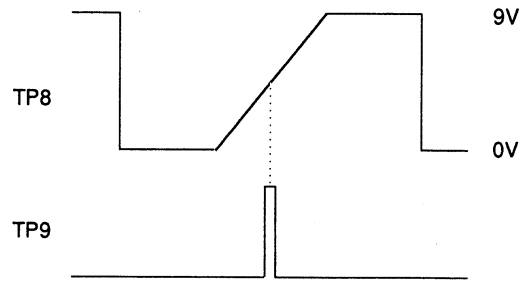



A = B
⊘ RV6

### 7-4-7. Servo Lock Check and Readjustment

Equipment: Oscilloscope
Digital voltmeter
Mode: REC
Switch and control setting:
SW2 = NOR position
SW204 = TEST position
MMV810/802 only: ⊘RV7 = maximum CCW

1. Confirm that the TP9 pulse is locked up in the ramp pulse (TP8).

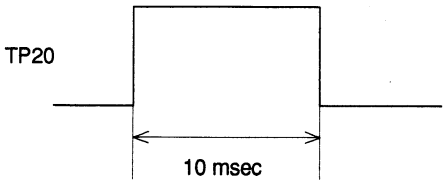



2. Speed Loop Readjustment
TP4 = 6 ± 0.2 V / ⊘ RV201 (MMV800/802)
/ ⊘ RV202 (MMV810)
3. Offset Voltage Readjustment
TP10 = 6 ± 0.2 V / ⊘ RV203 (MMV800/802)
/ ⊘ RV204 (MMV810)

**Note:** If the offset voltage in step 3 is unstable, perform steps 2 and 3 repeatedly and gradually adjust the voltage at TP4 to 6V.

### 7-4-8. Capstan Alarm Adjustment

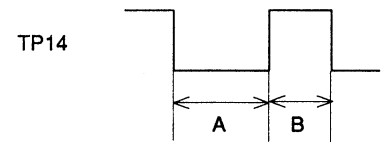
Equipment: Oscilloscope
Mode: REC




⊘ RV5

### 7-4-9. REC CTL Duty Adjustment

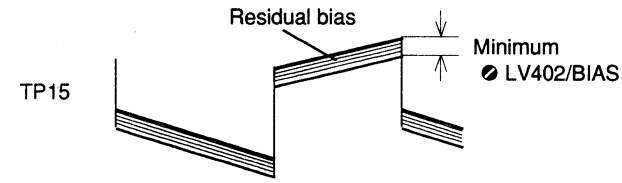
Equipment: Oscilloscope
Mode: REC




A : B = 3 : 2 (⊘ RV18)

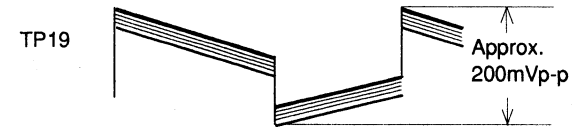
### 7-4-10. Bias Trap Adjustment (BIAS Board)

Equipment: Oscilloscope
Mode: REC




### 7-4-11. REC CTL Recording Current Check

Equipment: Oscilloscope
Mode: REC

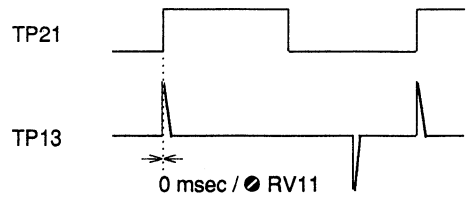



### 7-4-12. Tracking Control OFF Center Adjustment

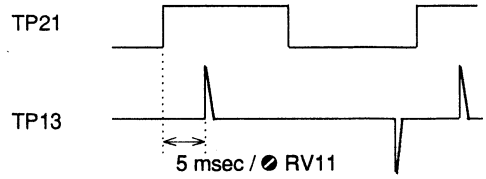
Equipment: Oscilloscope
Mode: REC ⇒ PLAY
Switch setting: SW7 (Tracking control) ⇒ FIX position

1. Make a short recording, and rewind the tape.
2. While playing back the recorded portion, perform the following adjustment.

**[MMV800/810]**




**[MMV802]**

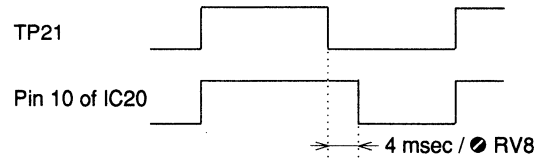



### 7-4-13.Tracking Control ON Center Adjustment

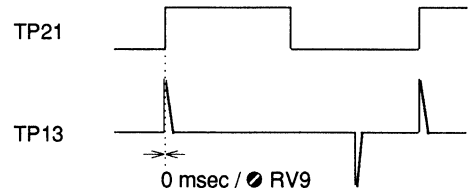
Equipment: Oscilloscope
Mode: REC ⇒ PLAY
Switch setting: SW7 (Tracking control) ⇒ VAR position

**[MMV800/810]**

1. With REC mode, perform the following adjustment.



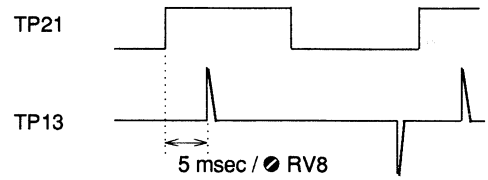

2. Set TRACKING control to mid-range. While playing back the tape recorded in step 1, perform the following adjustment.




3. Turn the TRACKING control slowly maximum clockwise and counterclockwise and check that the servo is locked inside the entire tracking control range.
   **Tracking control range**: ±8 msec or more

**[MMV802]**

1. Make a short recording and rewind the tape.
2. Set ⊘RV9 to maximum clockwise position.
3. Set TRACKING control to mid-range. While playing back the tape recorded in step 1, perform the following adjustment.




4. Turn the TRACKING control slowly maximum clockwise and counterclockwise and check that the servo is locked inside the entire tracking control range.
   **Tracking control range**: ±12 msec or more

### 7-4-14. PB CTL Check

Equipment: Oscilloscope
Mode: REC ⇒ PLAY
Switch setting: SW101 (CTL GAIN) ⇒ NOR position

1. Make a short recording and rewind the tape.
2. Connect scope probe to TP13.
3. While playing back the recorded portion, check the signal so that there are no glitches and sags.

### 7-4-15. Tape Speed Adjustment

Equipment: Frequency counter
Mode: PLAY ⇒ REC
Alignment tape: VP801 (MMV800)
VP811 (MMV810)
VP821 (MMV802)

1. Connect scope probe to TP1.
2. Play back the alignment tape and measure the average PB FG frequency for 10 seconds.
2. Remove the alignment tape and thread the blank tape.
3. With REC mode, measure the average REC FG frequency for 10 seconds and adjust the REC tape speed by selecting the position of the switches SW4, SW5 and SW6 until the tape speed during REC mode meet the following specification.
   **Specification**: PB FG = REC FG (within 0.1%)
   SW4: 1 step = approx. 3.0%
   SW5: 1 step = approx. 0.30%
   SW6: 1 step = approx. 0.030%

## 7-5. RSV BOARD ADJUSTMENT

This board consists of the tension alarm detector, and tension and speed servo circuits for PLAY, FFand REW modes.

**[Preparation]**
- Set switches SW1 and SW101 (FIX/SS) to SS position.
- Normally set switch SW2 (HIGH/LOW) to LOW position.

### 7-5-1. Reference Voltage Adjustment

Equipment: Digital voltmeter
Mode: STOP

**Specification**: TP201 = 6.0 ± 0.1 V

### 7-5-2. Potentiometer Polarity Check

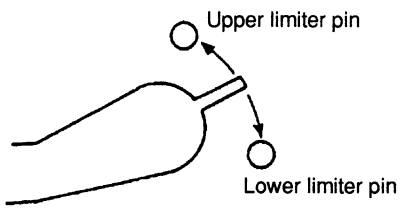
Equipment: Oscilloscope
Mode: STOP

1. Check that the voltage at TP1 increases when the T-side tension arm raises.
2. Check that the voltage at TP101 increases when the S-side tension arm raises.

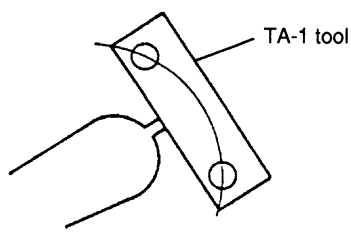
### 7-5-3. Error Amplifier Adjustment

Equipment: Digital voltmeter
Mode: STOP

1. T-side Gain Adjustment
   While slowly swinging the T-side tension arm within the range of upper and lower limiters with hand, adjust the voltage at TP9 with ⊘RV15.
   **Specification**: TP9 = 3.0 ± 0.1 V
   ⊘RV15




2. T-side Offset Adjustment
   Lock the tension arm in the center with TA-1 tool and adjust the voltage at TP9 with ⊘RV1.
   **Specification**: TP9 = 6.0 ± 0.2 V
   ⊘RV1



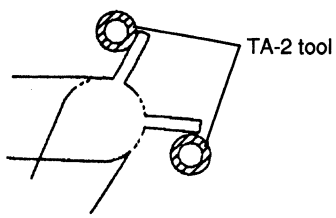

3. S-side Gain Adjustment
   While slowly swinging the S-side tension arm within the range of upper and lower limiters with hand, adjust the voltage at TP109 with ⊘RV115.
   **Specification**: TP109 = 3.0 ± 0.1 V
   ⊘RV115
4. S-side Offset Adjustment
   Lock the tension arm in the center with TA-1 tool and adjust the voltage at TP109 with ⊘RV101.
   **Specification**: TP109 = 6.0 ± 0.2 V
   ⊘RV101

### 7-5-4. Tension Alarm Adjustment

Mode: STOP

1. Set ⊘RV2 and ⊘RV102 to maximum clockwise position, and ⊘RV3 and ⊘RV103 to maximum counterclockwise position.
2. Put the TA-2 tool on the upper and lower limiter pins and adjust the following controls so that the alarm LED is lit when the tension arm is in contact with the TA-2 tool.

   Take-up side: LED D2 (Red)
   ⊘ RV2: Upper limit
   ⊘ RV3: Lower limit
   Supply side: LED D102 (Red)
   ⊘ RV102: Upper limit
   ⊘ RV103: Lower limit




### 7-5-5. Take-up Tension Offset Adjustment

Equipment: Digital voltmeter
Mode: STOP

1. Lock the tension arm in the center with the TA-1 tool.
2. Set ⊘ RV6 and ⊘ RV10 to maximum clockwise position, and ⊘ RV7 and ⊘ RV11 to maximum counterclockwise position.
3. Set SW2 (T.TEN) to LOW position.
   TP2 = 6.0 ± 0.1 V (⊘ RV4)
   TP3 = 6.0 ± 0.1 V (⊘ RV8)
4. Set SW2 (T.TEN) to HIGH position.
   TP2 = 7.0 ± 0.1 V (⊘ RV5)
5. Reset SW2 (T.TEN) to LOW position.

### 7-5-6. Supply Tension Offset Adjustment

Equipment: Digital voltmeter
Mode: STOP

1. Lock the tension arm at the center with TA-1 tool.
2. Set ⊘ RV106 and ⊘ RV110 to maximum clockwise position and ⊘ RV107 and ⊘ RV111 to maximum counterclockwise position.
3. Adjustment
   TP102 = 6.0 ± 0.1 V (⊘ RV104)
   TP103 = 6.0 ± 0.1 V (⊘ RV108)

### 7-5-7. Take-up Tension Limiter Adjustment

Equipment: Digital voltmeter
Mode: STOP

While slowly swinging the T-side tension arm within the range of upper and lower limiters with hand, adjust the voltage at TP2 and TP3 as follows:

Lower side: TP2 = 5.0 ± 0.1 V (⊘ RV7)
TP3 = 4.0 ± 0.1 V (⊘ RV11)
Upper side: TP2 = 9.0 ± 0.1 V (⊘ RV6)
TP3 = 11.0 ± 0.1 V (⊘ RV10)

### 7-5-8. Supply Tension Limiter Adjustment

Equipment: Digital voltmeter
Mode: STOP

While slowly swinging the S-side tension arm within the range of upper and lower limiters with hand, adjust the voltage at TP102 and TP103 as follows:

Lower side: TP102 = 4.0 ± 0.1 V (⊘ RV107)
TP103 = 4.0 ± 0.1 V (⊘ RV111)
Upper side: TP102 = 8.0 ± 0.1 V (⊘ RV106)
TP103 = 11.0 ± 0.1 V (⊘ RV110)

### 7-5-9. Output Amplifier Offset Adjustment

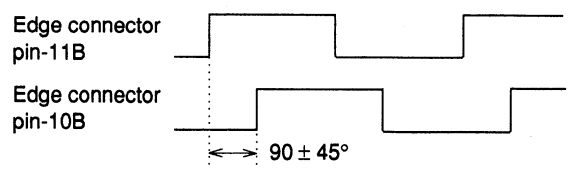
Equipment: Digital voltmeter
Mode: STOP

TP5 = 0 ± 0.01 V (⊘ RV12)
TP105 = 0 ± 0.01 V (⊘ RV112)

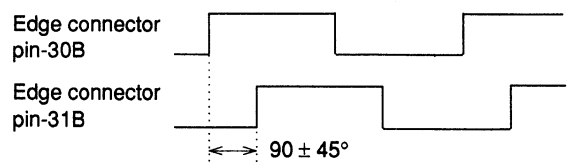
### 7-5-10. Reel FG Check

Equipment: Oscilloscope
Mode: STOP

1. Turn the take-up reel in the clockwise direction with hand.




2. Turn the supply reel in the clockwise direction with hand.



### 7-5-11. Reel Rotating Direction Check

Equipment: Oscilloscope
Mode: STOP

1. Turn the take-up reel with hand and check that the voltage at TP6.
   CW direction: TP6 = voltage output
   CCW direction: TP6 = 0 V
2. Turn the supply reel with hand and check that the voltage at TP106.
   CW direction: TP106 = 0V
   CCW direction: TP106 = voltage output

### 7-5-12. Speed Servo Check

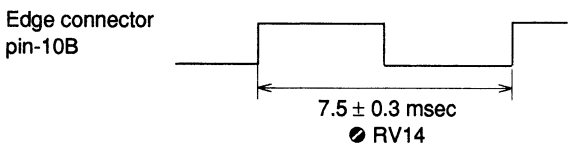
Mode: FF and REW
Switch setting: SW1, SW102 (FIX/SS) ⇒ SS position

1. With FF mode, check that the speed varies with ⊘ RV14.
2. With REW mode, check that the speed varies with ⊘ RV114.

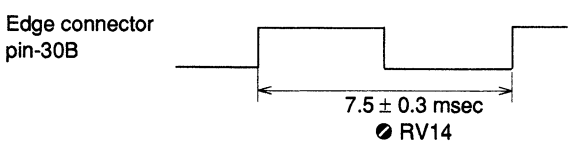
### 7-5-13.FF/REW Speed Adjustment

Equipment: Oscilloscope
Mode: FF and REW

1. FF Speed Adjustment



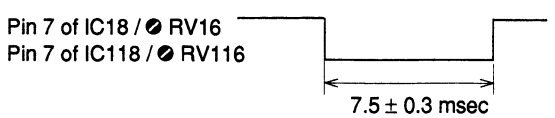

2. REW Speed Adjustment




### 7-5-14. Reel Stop Detector Adjustment

Equipment: Oscilloscope
Mode: PLAY

1. Monostable Multivibrator Output Adjustment

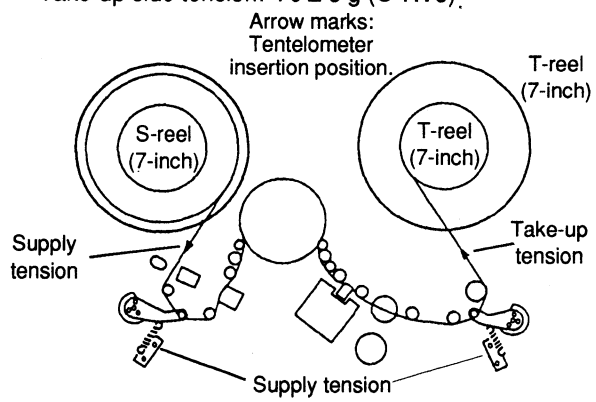



2. Reel Rotation Stop Indication Check
   From FF or REW mode, put the unit in STOP mode and check that the speed is decelerating and LED D12 (for FF) or D112 (for REW) is lit.

### 7-5-15. FWD Tension Adjustment

Equipment: Tentelometer
Mode: PLAY
Switch setting: SW2 (T.TEN SW) ⇒ LOW position

1. Check that the tension arm, both on take-up and supply sides, balances at the center of movable range.
2. If not, adjust the following controls.
   T-side: ⊘ RV4
   S-side: ⊘ RV104
3. Back Tension Adjustment (See Sec.11-2-1.)
   Adjust the position of the tension spring.
   S-side tension: 60 ± 3 g
4. Take-up Tension Adjustment
   Adjust the position of the tension spring.
   T-side tension: 30 ± 5 g
5. Take-up Tension (HIGH) Adjustment
   Set SW2 (T.TEN) to "HIGH" position and adjust the tension.
   Take-up side tension: 70 ± 5 g (⊘ RV5)




### 7-5-16. FF/REW Back Tension Adjustment

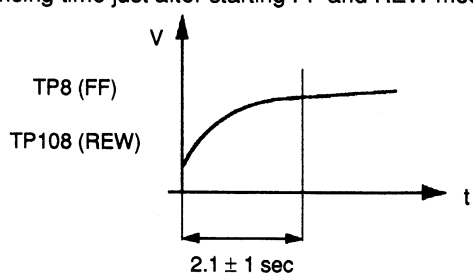
Equipment: Tentelometer
Mode: FF and REW

S-side back tension: 10 ± 3 g (FF mode)
⊘ RV108
T-side back tension: 8 ± 3 g (REW mode)
⊘ RV8

### 7-5-17. FF/REW Rise Time Check

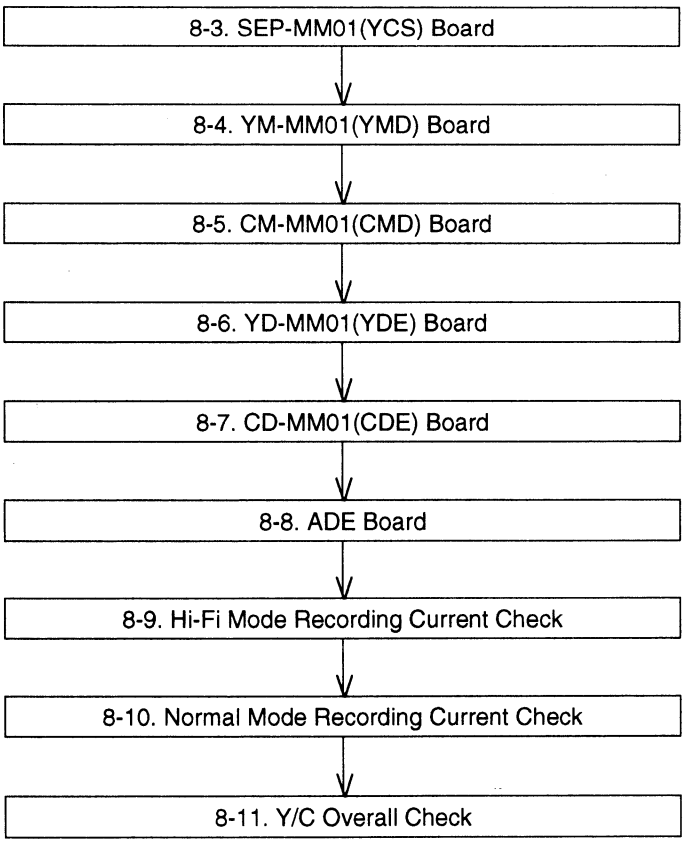
Equipment: Oscilloscope
Mode: FF and REW

Connect scope probes to TP8 and TP108 and measure the rising time just after starting FF and REW modes.



# SECTION 8
# VIDEO SYSTEM ALIGNMENT

## 8-1. ALIGNMENT PROCEDURE



## 8-2.PREPARATION BEFORE ADJUSTMENT

### 8-2-1. Switch Settings

**Note**: Be sure to check the position of switches marked with asterisk (*) previously.

**SEP-MM01(YCS) Board**

| | | |
|---|---|---|
| * | S1(AGC): | "ON" |
| | S101(COMB): | "ON" |
| | S501: | "D" |
| | S502: | "0" |
| | S503: | "1" |
| | S504: | "0" |

**Front Panel**

| | | |
|---|---|---|
| | AFM: | "ON" |

**YM-MM01(YMD) Board**

| | | |
|---|---|---|
| | S1: | "NOR" |
| * | S2(ENH): | "OFF" |
| * | S5: | "2" |

**EQ-MM01(RFE) Board**

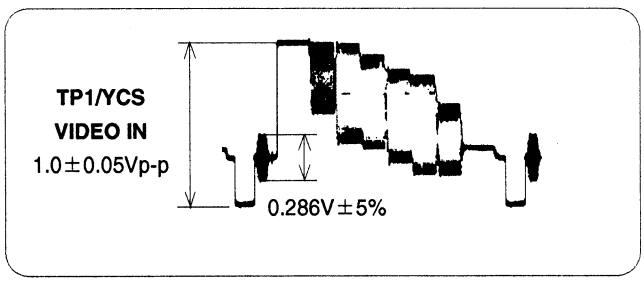
| | | |
|---|---|---|
| | S1(TEST): | "INT" |
| | S3(SW): | "ON" |
| | S4(A CH): | "ON" |
| | S5(B CH): | "ON" |
| | S6(FM): | "ON" |
| * | S7(A CH F): | "2" |
| * | S8(B CH F): | "2" |

**YD-MM01(YDE) Board**

| | | |
|---|---|---|
| | S1(DEV): | "OFF" |
| * | S3(DOC): | "OFF" |

### 8-2-2. Input Signal Check: SEP-MM01(YCS) Board

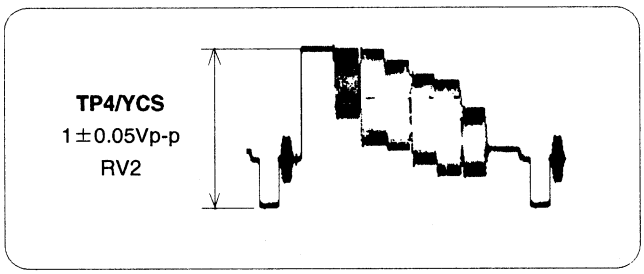
Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars




## 8-3. SEP-MM01(YCS) BOARD

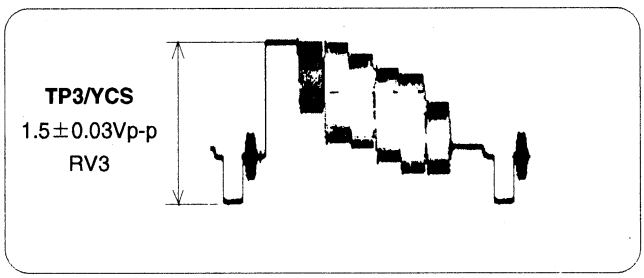
### 8-3-1. AGC Level Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars



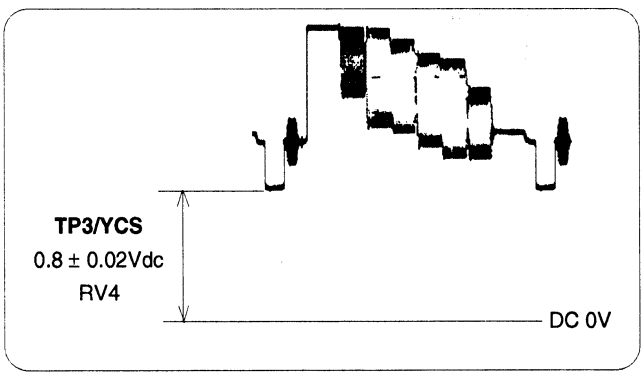

### 8-3-2. A/D Input Level Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars



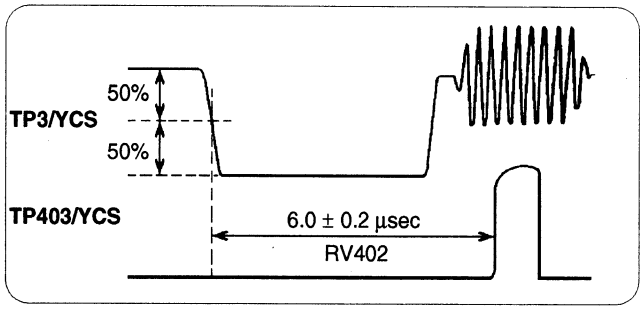

### 8-3-3. DC Level Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars



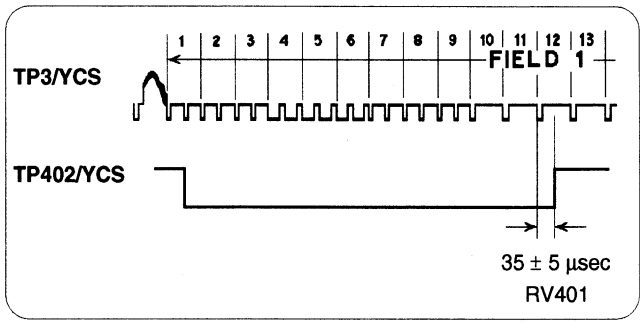
### 8-3-4. Burst Gate Pulse Check

Equipment: Oscilloscope
EXT trig.: TP401/SEP-MM01(YCS)
Mode: E-E
Input Signal: Color Bars




### 8-3-5. V Pulse Check

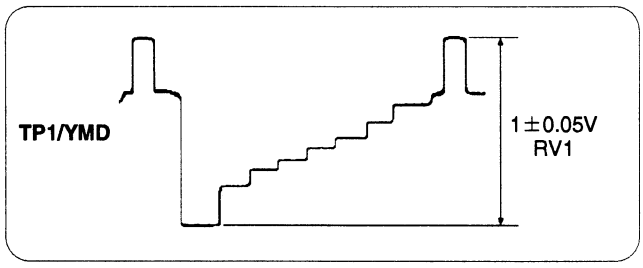
Equipment: Oscilloscope
EXT trig.: TP202/CD-MM01(CDE)
Mode: E-E
Input Signal: Color Bars




## 8-4. YM-MM01(YMD) BOARD

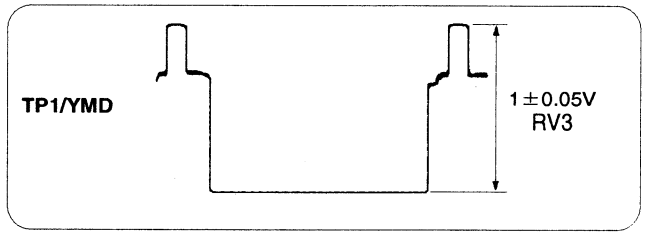
### 8-4-1. Modulator Input Level Check (1)

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars



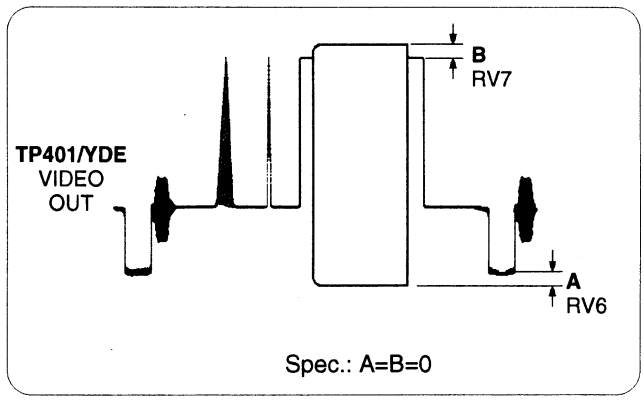

### 8-4-2. Modulator Input Level Check (2)

Equipment: Oscilloscope
Mode: E-E
Input Signal: 100% White (Without Burst)



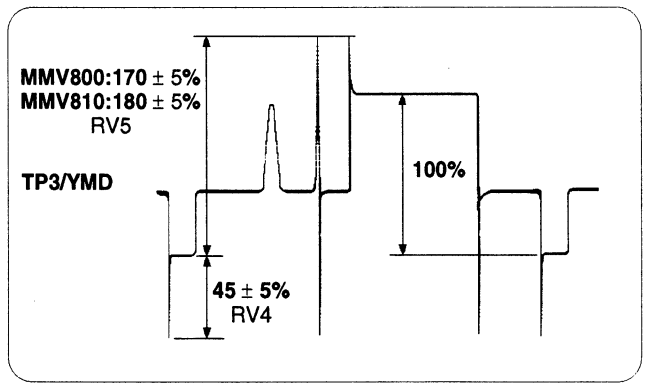

### 8-4-3. FM Carrier/Deviation Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Pulse & Bar
Switch Settings:
S1/YD-MM01(YDE) → "ON"




### 8-4-4. Clip Level Check

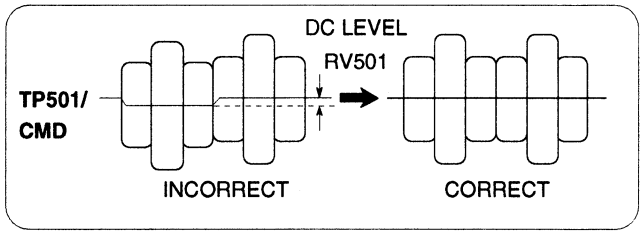
Equipment: Oscilloscope
Mode: E-E
Input Signal: Pulse & Bar



## 8-5. CM-MM01(CMD) BOARD

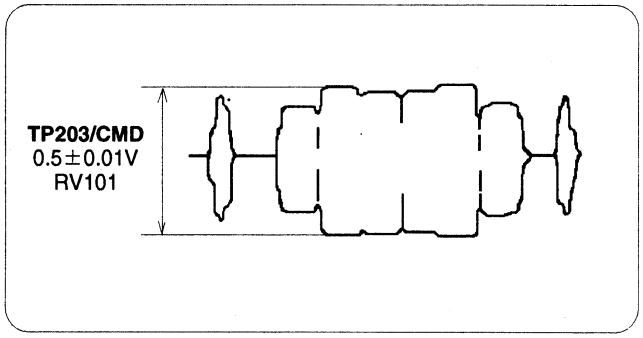
### 8-5-1. DG Compensator Balance Check

Equipment: Oscilloscope
EXT trig.: TP803/CM-MM01(CMD)
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: Color Bars




### 8-5-2. Chroma Output Level Check

Equipment: Oscilloscope
EXT trig.: TP803/CM-MM01(CMD)
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: Color Bars

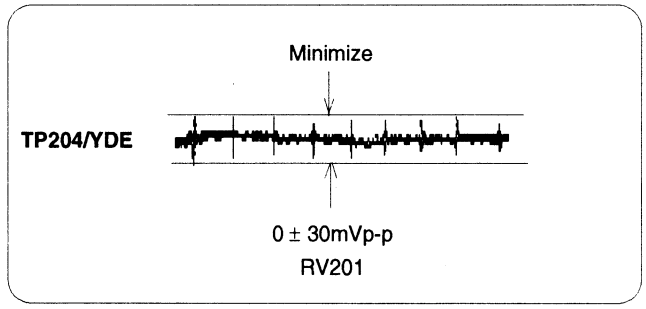



## 8-6. YD-MM01(YDE) BOARD

### 8-6-1. APL Level Check

Equipment: Oscilloscope
EXT trig.: TP803/CM-MM01(CMD)
Mode: E-E
Input Signal: Color Bars

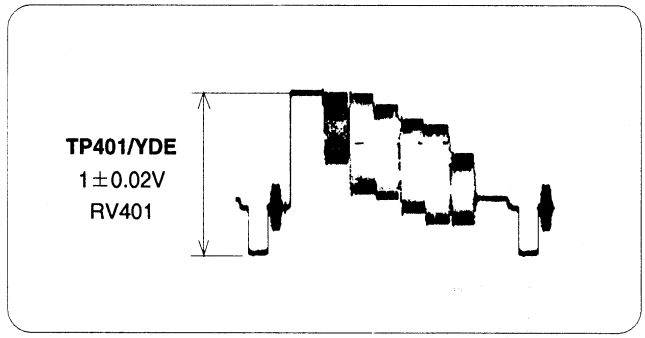
1. Connect scope to TP204 on the YM-MM01(YDE) board.
2. **Check/Adjustment**




### 8-6-2. Video Output Level Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars

Terminate the VIDEO OUTPUT connector with 75-ohm terminator.



## 8-7. CD-MM01(CDE) BOARD

### 8-7-1. PB SC Check

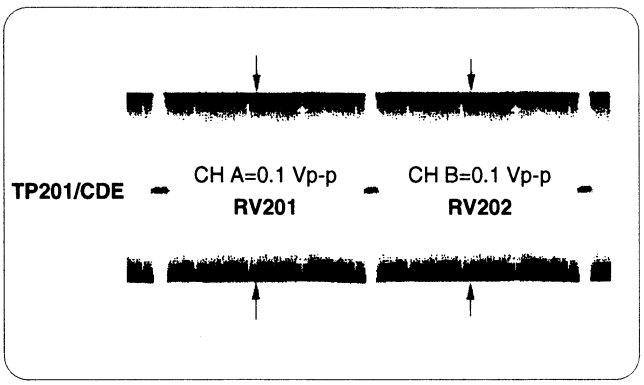
Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars

TP402: 3579545 ± 10 Hz (Frequency)
0.5 to 1 Vp-p (Level)

### 8-7-2. PB Chroma Level Check

Equipment: Oscilloscope
EXT trig.: TP202/CD-MM01(CDE)
Alignment tape
Mode: PLAY
Input Signal: Needless

1. Thread an alignment tape.
2. Place MMV into FF mode and press STOP button when color bars signal appears on the picture monitor.
3. While playing back the color bars signal, check as follows.
4. **Check/Adjustment**

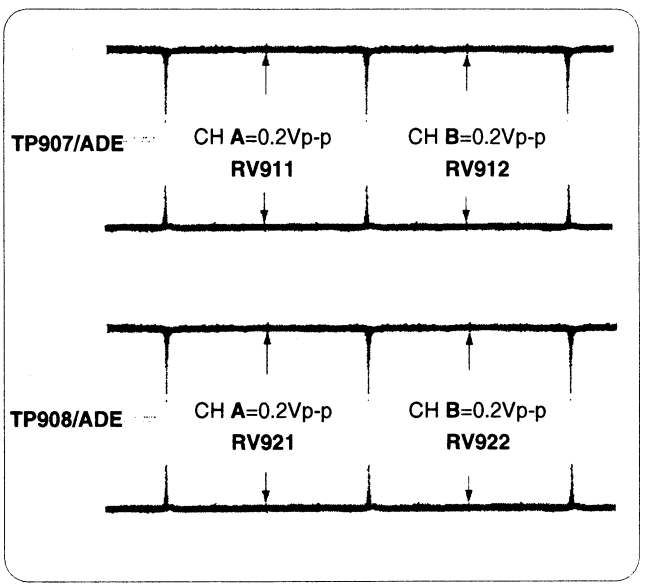



## 8-8. ADE BOARD

### 8-8-1. PB AFM Level Check (ADE Board)

Equipment: Oscilloscope
EXT trig.: TP906/ADE
Alignment tape
Mode: PLAY
Input Signal: Needless

1. Thread an alignment tape.
2. Place MMV into FF mode and press STOP button when color bars signal appears on the picture monitor.
3. To set the TAPE LENGTH counter to "Zero", press RESET switch on the function control panel.
4. Place MMV into FF mode and press STOP button when the black burst signal appears on the picture monitor.
5. While playing back the black burst signal, turn TRACKING control for maximum output and then perform the following check or adjustment.
6. **Check/Adjustment**



## 8-9. Hi-Fi MODE REC CURRENT CHECK

### 8-9-1. REC FM Level Check (RFE Board)

Equipment: Oscilloscope
EXT trig.: TP906/ADE
Blank tape
Mode: REC → PLAY
Input Signal: Color Bars
Switch Settings:
Hi-Fi switch/meter panel → "ON"
S7/EQ-MM01(RFE) → "4"
S8/EQ-MM01(RFE) → "4"
S1/YM-MM01(YMD) → "TEST"

1. Thread a blank tape, make a short recording the color bars signal, and rewind the tape.
2. Enter PLAY mode and measure the AFM RF level at TP907 on the ADE board for within specifications.
   **Spec.**: TP907/ADE = 0.2 $\pm {}^{0.02}_{0}$ Vp-p (both CH-A/CH-B)
3. If measured level is out of specifications, place MMV into REC mode, and perform the following adjustment.
4. **Adjustment**
   If CH-A level is low:
   MMV800: decrease TP10/CH-B level for 5% with RV10
   MMV810: decrease TP9/CH-A level for 5% with RV8
   If CH-A level is high:
   MMV800: increase TP10/CH-B level for 5% with RV10
   MMV810: increase TP9/CH-A level for 5% with RV8
   If CH-B level is low:
   MMV800: decrease TP9/CH-A level for 5% with RV8
   MMV810: decrease TP10/CH-B level for 5% with RV10
   If CH-B level is high:
   MMV800: increase TP9/CH-A level for 5% with RV8
   MMV810: increase TP10/CH-B level for 5% with RV10
5. Repeat steps 3 and 4 several times until satisfy the specification in step 2.
6. Make a short recording the color bars signal and rewind the tape. While playing back the recorded portion, check as follows.
   **Spec.**: TP908/ADE= 0.2 $\pm {}^{0.04}_{0}$ Vp-p (both CH-A/CH-B)
7. If not, perform adjustment in simillar manner of steps 3 and 4.
8. Repeat step 2 if RV10 and RV8 have been adjusted in step 7.
   If the level is out of specifications, repeat adjustment until the specifications in steps 2 and 6 are met.
9. If still out of specifications, vary mixture level (at TP1/AMD) of 1.3 MHz and 1.7 MHz components with RV105, and repeat steps 1 to 8.
10. After adjustment, set the following switches as follows.
    S7/EQ-MM01(RFE) → "2"
    S8/EQ-MM01(RFE) → "2"
    S1/YM-MM01(YMD) → "NOR"

### 8-9-2. REC Chroma Level Check: CD-MM01(CDE) Board

Equipment: Oscilloscope
EXT trig.: TP202/CD-MM01(CDE)
Blank tape
Mode: REC → PLAY
Input Signal: Color Bars
Switch Settings:
S6/EQ-MM01(RFE) → See below.

1. Thread a blank tape, make a short recording the color bars signal, and rewind the tape.
2. Enter PLAY mode and measure the croma level at TP201 on the CD-MM01(CDE) board for 0.1±0.01Vp-p.
3. If measured level is out of specifications, set S6 on the RFE board to OFF, and perform the following adjustment with REC mode.
4. **Adjustment**
   If CH-A level is out of specification, fine adjust the chroma level at TP9 on the EQ-MM01(RFE) board with RV12.
   If CH-B level is out of specification, fine adjust the chroma level at TP10 on the EQ-MM01(RFE) board with RV13.
5. After adjustment, reset S6 on the EQ-MM01(RFE) board to ON, and repeat step 2.

**Note;**
In Hi-Fi mode recording current adjustment, when measuring the recording current before adjustment, slight lower level against the level specified by an alignment tape is output due to head wear.
On section 8-9.Hi-Fi Mode Recording Current Adjustment, video recording current on both CH-A and CH-B are practically set to a low level.
Before adjustment, check the AFM RF levels whether they are optimum or not, and perform adjustment only when the levels measured are not optimum.
In order to prevent deterioration of video S/N, be careful when increasing the level than the level specified by an alignment tape.
It is necessary to replace the head assembly if video S/N is extremely deteriorating or if the head assembly had been used approximately 500 hours or longer.

## 8-10. NORMAL MODE REC CURRENT CHECK

**8-10-1.REC FM Check**: EQ-MM01(RFE) Board

Equipment: Oscilloscope
Blank tape
Mode: REC
Input Signal: Color Bars
Switch Settings:
Hi-Fi switch/meter panel → See below.
S1/YM-MM01(YMD) → "TEST"

1. Set Hi-Fi switch on the meter panel to "ON".
2. Thread a blank tape, enter REC mode, and measure the levels at TP9 and TP10.
3. With Hi-Fi switch on the meter panel "OFF", measure the levels at TP9 and TP10 again, and compare the levels measured in steps 1 and 2. If step 2 level is out of the following specification, adjust RV1 on the EQ-MM01(RFE) board.
   **Spec.**: 15 ± 5 %
4. After adjustment, reset S1 on the YM-MM01(YMD) board to "NOR".

**8-10-2.REC Chroma Level Check**: EQ-MM01(RFE) Board

Equipment: Oscilloscope
EXT trig.: TP202/CD-MM01(CDE)
Blank tape
Mode: REC
Input Signal: Color Bars
Switch Settings:
Hi-Fi switch/meter panel → See below.
S6/EQ-MM01(RFE) → "OFF"

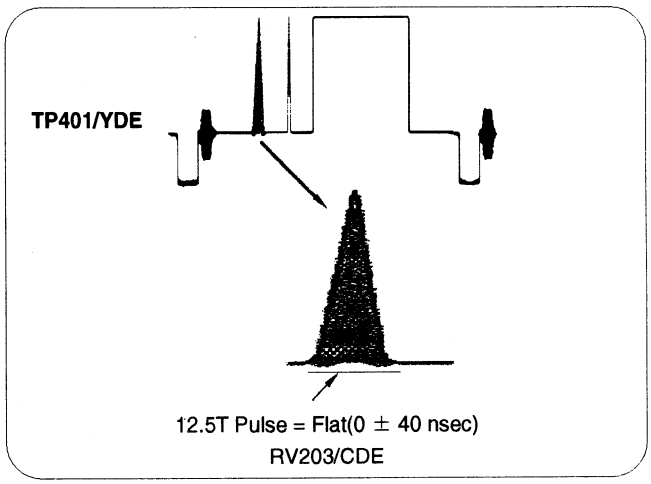
1. Set Hi-Fi switch on the meter panel to "ON".
2. Thread a blank tape, enter REC mode, and measure the levels at TP9 and TP10.
3. With Hi-Fi switch on the meter panel "OFF", measure the levels at TP9 and TP10 again, and compare the levels measured in steps 1 and 2. If step 2 level is out of the following specification, adjust RV16 on the EQ-MM01(RFE) board.
   **Spec.**: ±10 % or more
4. After adjustment, reset S6 on the EQ-MM01(RFE) board to "ON" and Hi-Fi switch on the meter panel to "ON".

## 8-11. Y/C OVERALL CHECK

**8-11-1.PB Y/C Delay Check**

Equipment: Oscilloscope
Alignment tape
Mode: PLAY
Input Signal: Needless

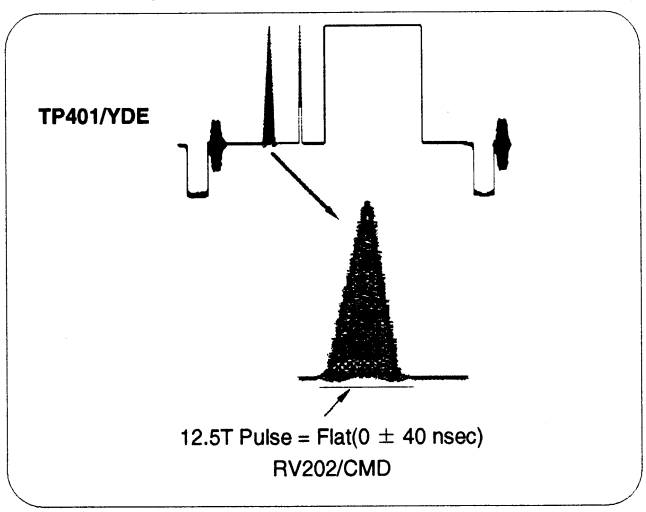
1. Play back the Pulse & Bar signal portion of an alignment tape.
2. **Check/Adjustment**




**8-11-2.REC Y/C Delay Check**

Equipment: Oscilloscope
Blank tape
Mode: REC → PLAY
Input Signal: Pulse & Bar

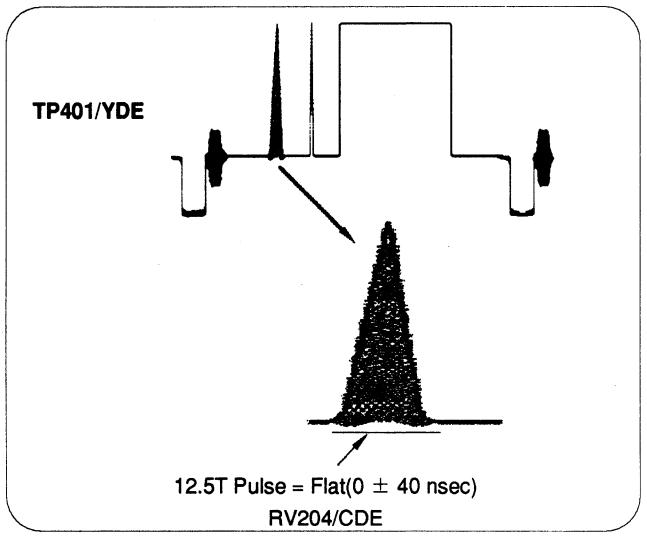
1. Thread a blank tape, make a short recording the Pulse & Bar signal, and rewind the tape.
2. While playing back the recorded portion, check as follows.
3. **Check/Adjustment**



### 8-11-3.E-E Y/C Delay Check

Equipment: Oscilloscope
Blank tape
Mode: E-E
Input Signal: Pulse & Bar

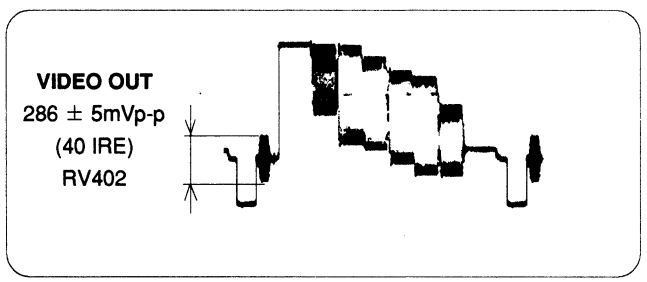
1. Thread a blank tape. With E-E mode, perform as follows.
2. **Check/Adjustment**




### 8-11-4.Burst Level Check: YD-MM01(YDE) Board

Equipment: Waveform Monitor
Mode: E-E
Input Signal: Color Bars

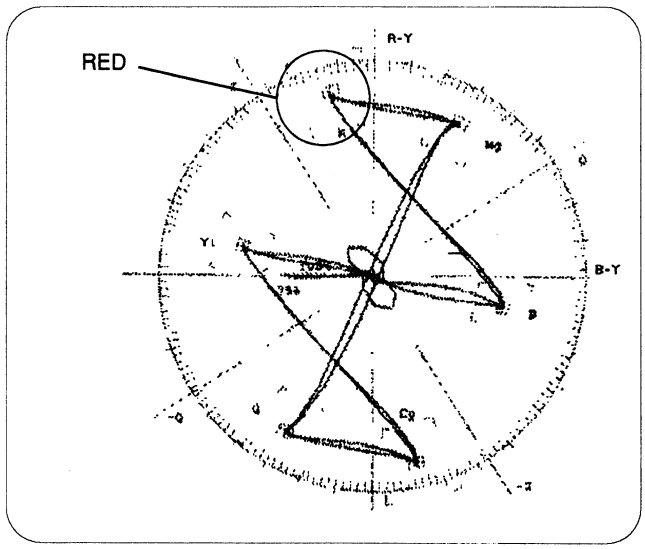
1. Connect waveform monitor to VIDEO OUT connector and terminate with 75-ohm terminator.
2. **Check/Adjustment**




### 8-11-5. HUE Check: CM-MM01(CMD) Board

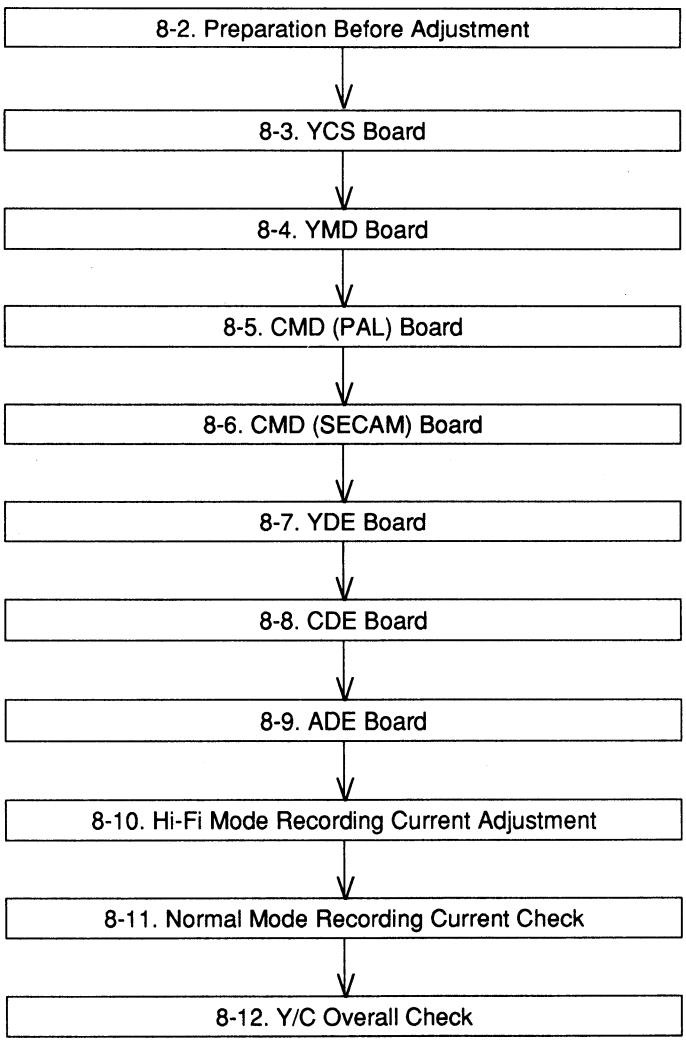
Equipment: Vectorscope (VECTOR mode)
Mode: E-E
Input Signal: Color Bars

1. Connect vectorscope to VIDEO OUT connector.
2. While playing back, check that the Red component is inside the specified area on the vectorscope. If not, adjust RV402 and RV401 on the CM-MM01(CMD) board.



# SECTION 8
# VIDEO SYSTEM ALIGNMENT FOR MMV802

## 8-1. ALIGNMENT PROCEDURE



## 8-2. PREPARATION BEFORE ADJUSTMENT

### 8-2-1. Switch Settings

**Note**: Be sure to check the position of switches marked with asterisk (*) previously.

**YCS Board**

| | |
|---|---|
| * S1(AGC): | "ON" |
| S101(COMB): | "ON" |
| S501: | "B" |
| S502: | "0" |
| S503: | "1" |
| S504: | "0" |
| S505: | "B" |
| S506: | "0" |
| S507: | "1" |
| S508: | "0" |

**YMD Board**

| | |
|---|---|
| S1: | "NOR" |
| * S2(ENH): | "ON" |
| * S5: | "2" |

**CMD (PAL) Board**

| | |
|---|---|
| S801(DGC): | "ON" |

**RFE Board**

| | |
|---|---|
| S1(TEST): | "INT" |
| S3(SW): | "ON" |
| S4(A CH): | "ON" |
| S5(B CH): | "ON" |
| S6(FM): | "ON" |
| * S7(A CH F): | "3" |
| * S8(B CH F): | "3" |

**YDE Board**

| | |
|---|---|
| S1(DEV): | "OFF" |
| * S3(DOC): | "OFF" |

**CMD Board**

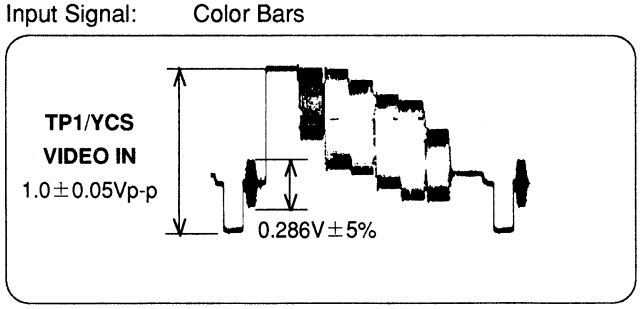
| | |
|---|---|
| S301: | "AUTO" |
| * S302: | "SECAM" |

**Front Panel**

| | |
|---|---|
| AFM: | "ON" |

### 8-2-2. Input Signal Check

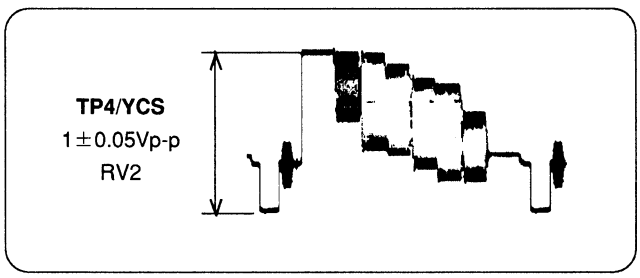
Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars




## 8-3. YCS BOARD

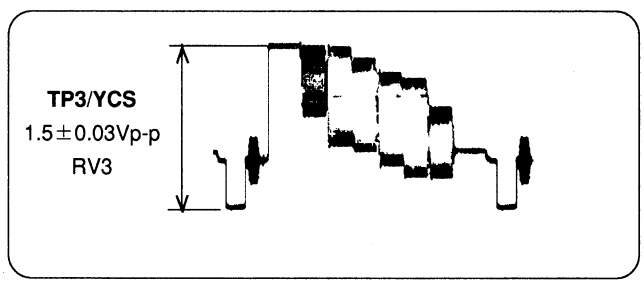
### 8-3-1. AGC Level Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars



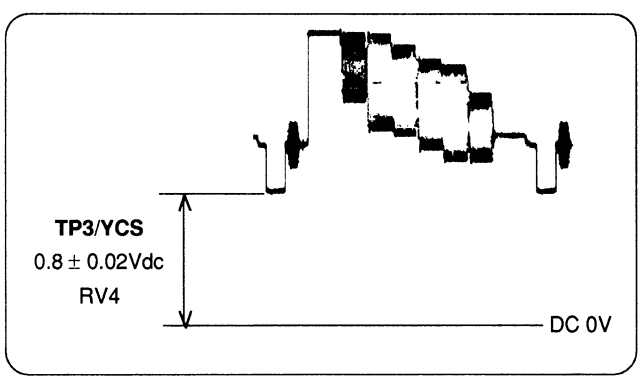

### 8-3-2. A/D Input Level Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars



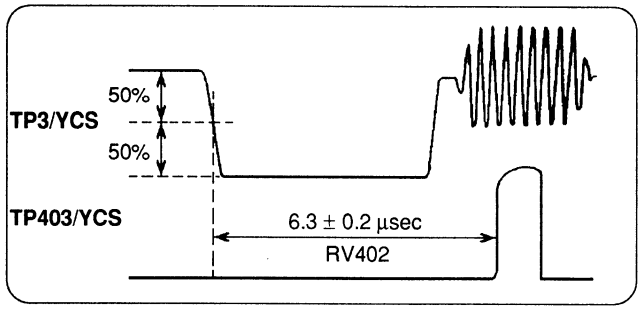

### 8-3-3. DC Level Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars



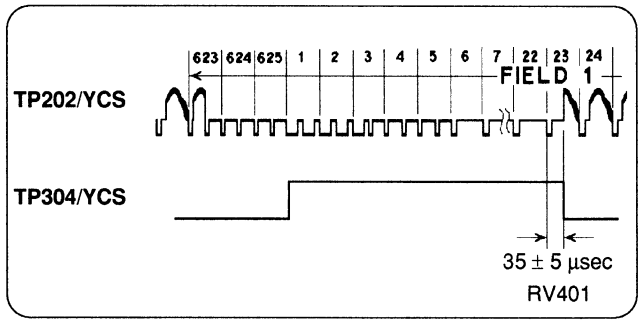
### 8-3-4. Burst Gate Pulse Check

Equipment: Oscilloscope
EXT trig.: TP401/YCS
Mode: E-E
Input Signal: Color Bars




### 8-3-5. V Pulse Check

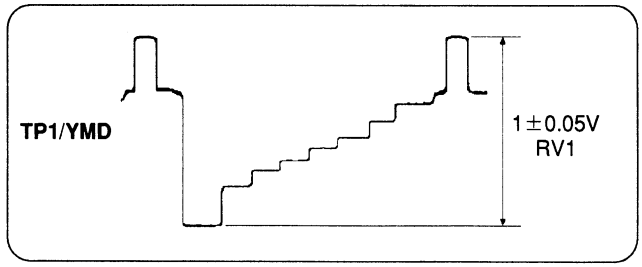
Equipment: Oscilloscope
EXT trig.: TP202/CDE
Mode: E-E
Input Signal: Color Bars




## 8-4. YMD BOARD

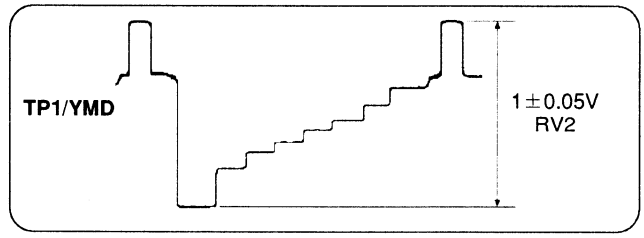
### 8-4-1. Modulator Input Level Check (1)

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars (PAL)



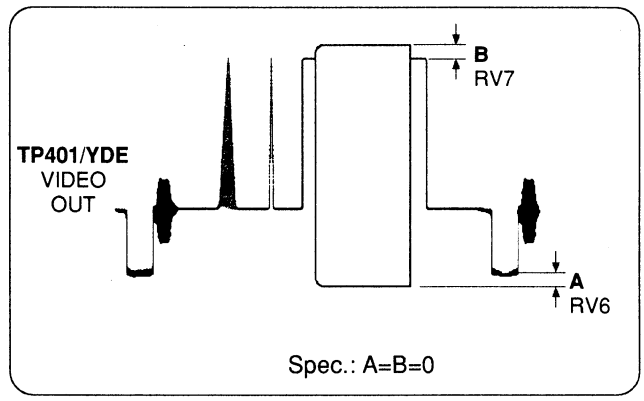

### 8-4-2. Modulator Input Level Check (2)

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars (SECAM)



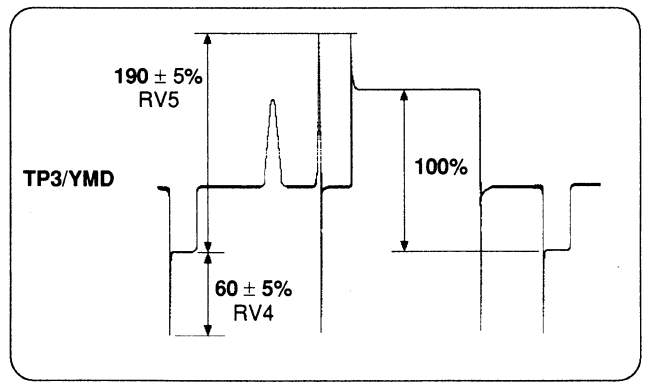

### 8-4-3. FM Carrier/Deviation Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Pulse & Bar
Switch Settings: S1/YDE → "ON"




### 8-4-4. Clip Level Check

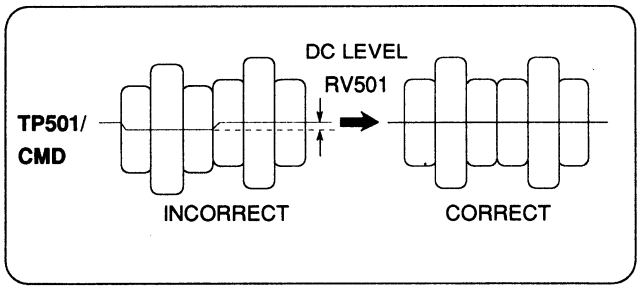
Equipment: Oscilloscope
Mode: E-E
Input Signal: Pulse & Bar



## 8-5. CMD (PAL) BOARD

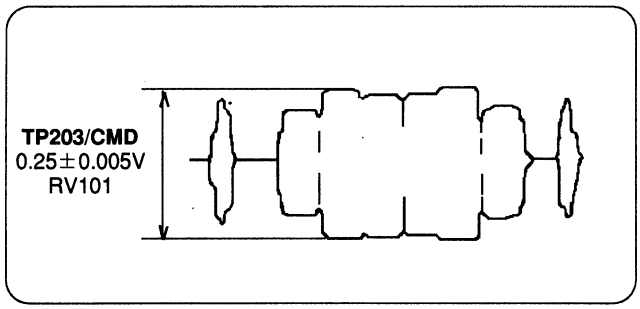
### 8-5-1. DG Compensator Balance Check

Equipment: Oscilloscope
EXT trig.: TP803/CMD
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: PAL Color Bars
Switch Settings: S801(DGC) → ON




### 8-5-2. Chroma Output Level Check

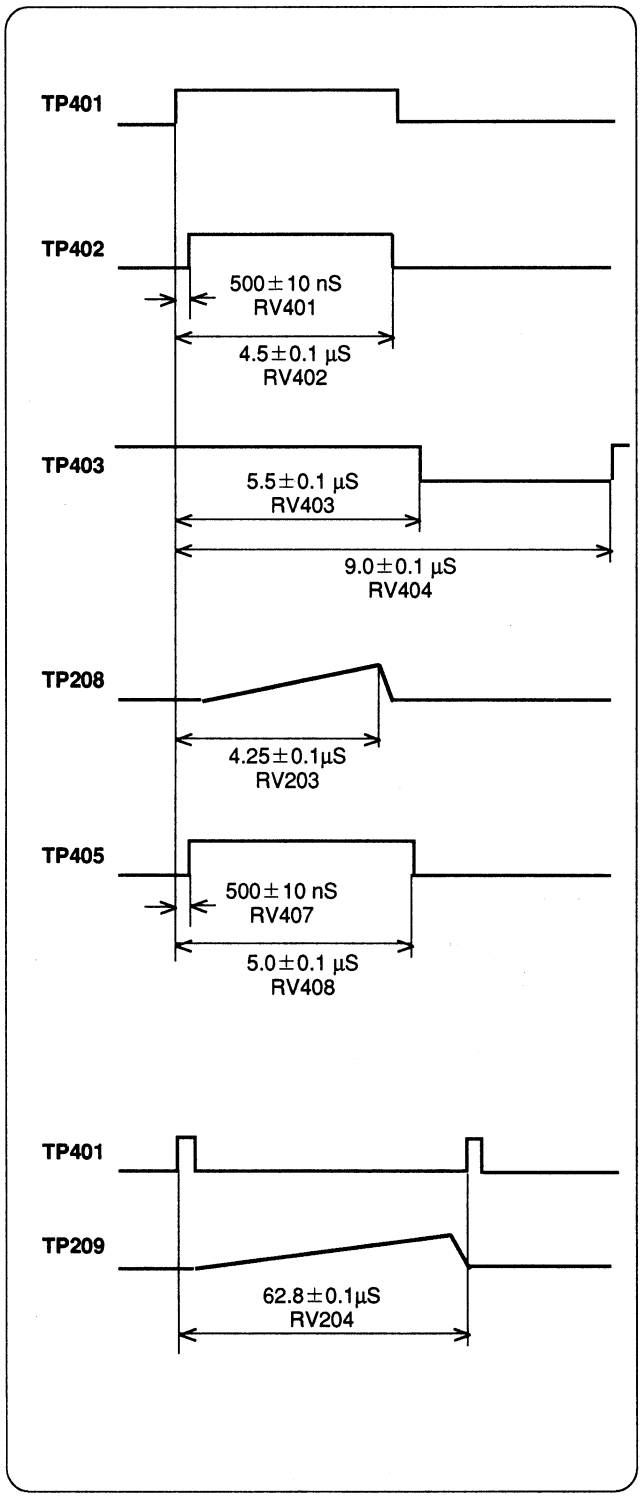
Equipment: Oscilloscope
EXT trig.: TP803/CMD
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: PAL Color Bars




## 8-6. CMD (SECAM) BOARD

### 8-6-1. Delayed Sync Timing Adjustment

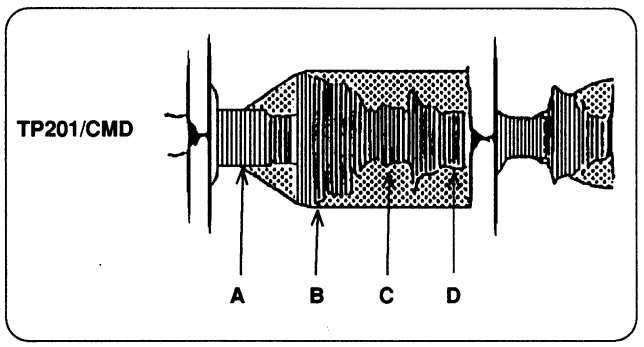
Equipment: Oscilloscope
EXT trig.: TP401/CMD
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: SECAM Color Bars



### 8-6-2. Rec EQ Adjustment

Equipment: Oscilloscope
EXT trig.: TP401/CMD
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: SECAM Color Bars

**Specification;** A : B : C : D = 1 : 1.4 : 1 : 1
⊘L202



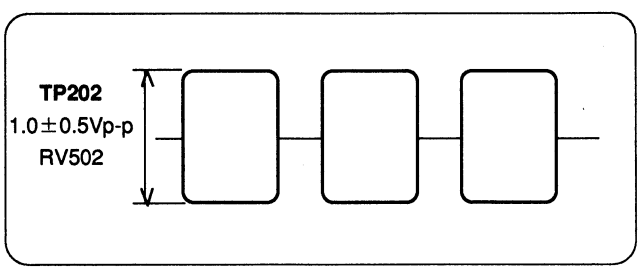

### 8-6-3. Limiter Adjustment

Equipment: Oscilloscope
EXT trig.: TP401/CMD
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: SECAM Color Bars

1. Connect scope probe to TP502 on the CMD (SECAM) board.
2. Turn RV503 to maximum clockwise position.
3. While observing TP502, slowly turn RV503 counterclockwise until the point where the waveform appears.

### 8-6-4. Chroma Level Adjustment

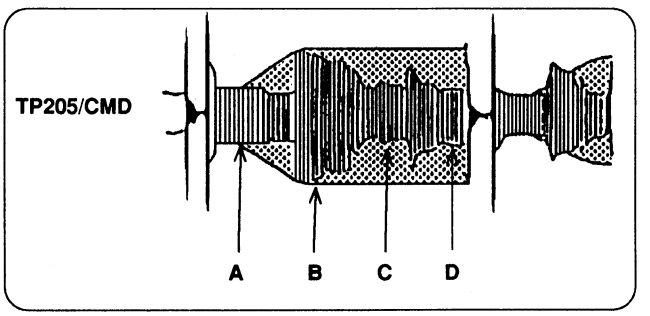
Equipment: Oscilloscope
EXT trig.: TP401/CMD
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: SECAM Color Bars




### 8-6-5. Bell Filter Adjustment

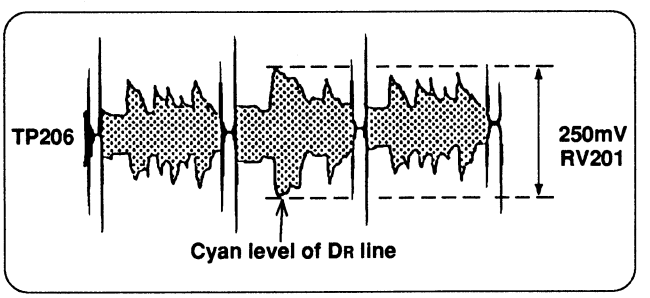
Equipment: Oscilloscope
EXT trig.: TP401/CMD
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: SECAM Color Bars

**Specification;** A : B : C : D = 1 : 2.1 : 1 : 1
⊘FL201



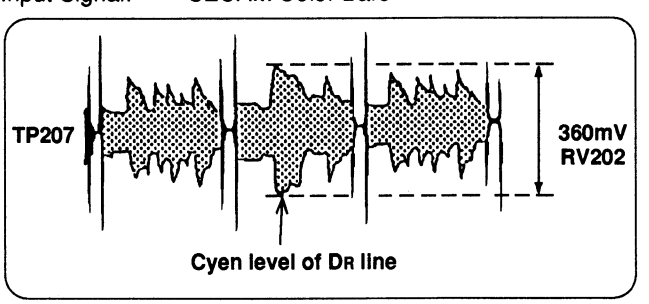

### 8-6-6. Chroma Level Adjustment

Equipment: Oscilloscope
EXT trig.: TP401/CMD
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: SECAM Color Bars




### 8-6-7. Chroma Output Level Adjustment

Equipment: Oscilloscope
EXT trig.: TP401/CMD
TRIG. Slope: Minus (-)
Mode: E-E
Input Signal: SECAM Color Bars

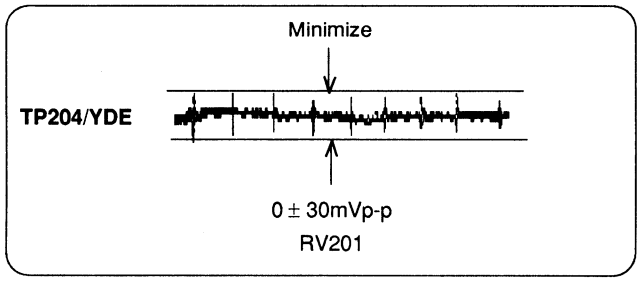


## 8-7. YDE BOARD

### 8-7-1. APL Level Check

Equipment: Oscilloscope
EXT trig.: TP803/CMD
Mode: E-E
Input Signal: Color Bars

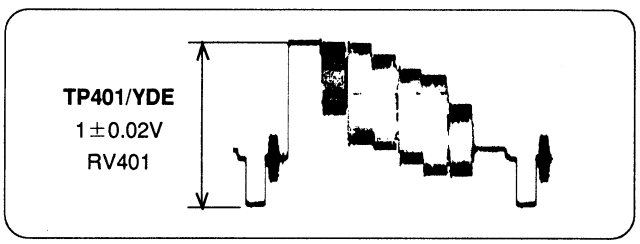
1. Connect scope to TP204 on the YDE board.
2. **Check/Adjustment**




### 8-7-2. Video Output Level Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars

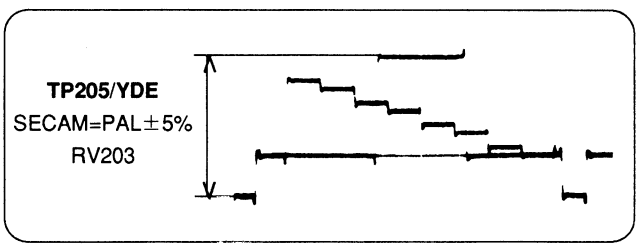
Terminate the VIDEO OUTPUT connector with 75Ω terminator.




### 8-7-3. SECAM Level Check

Equipment: Oscilloscope
Mode: E-E
Input Signal: Color Bars (PAL → SECAM)

1. Input the PAL color bars signal and measure the levle at TP205 on the YDE board.
2. Input the SECAM color bars signal and RV203 as follows.




## 8-8. CDE BOARD

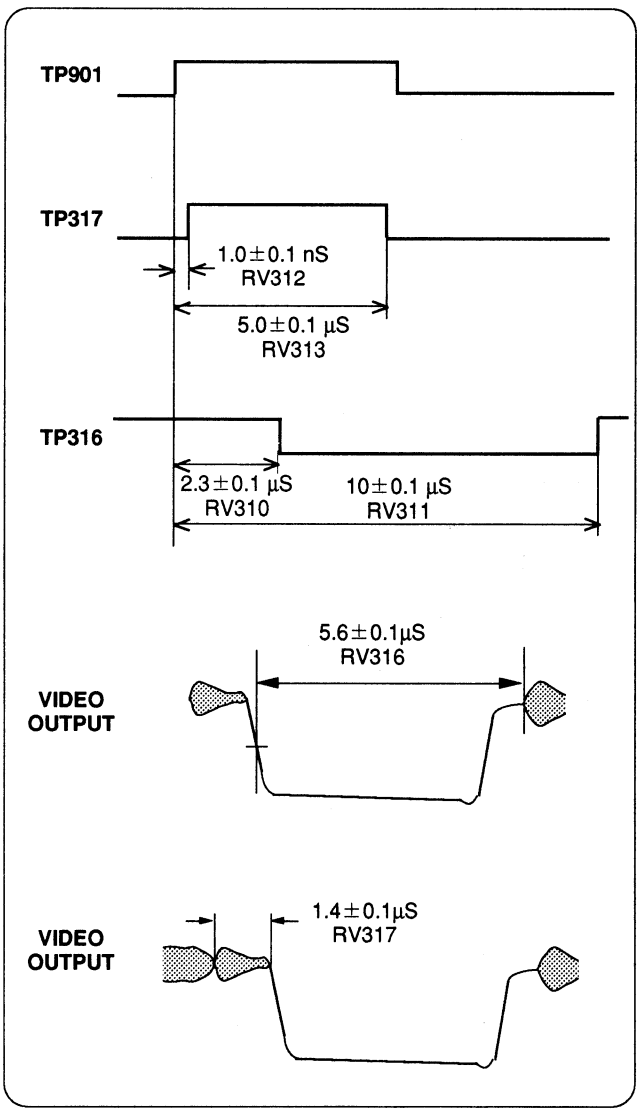
### 8-8-1. PB SC Check

Equipment: Oscilloscope
EXT trig.: TP901/CDE
Mode: E-E
Input Signal: Color Bars

TP402: 4,433,619 ± 10 Hz (Frequency)
0.5 to 1 Vp-p (Level)

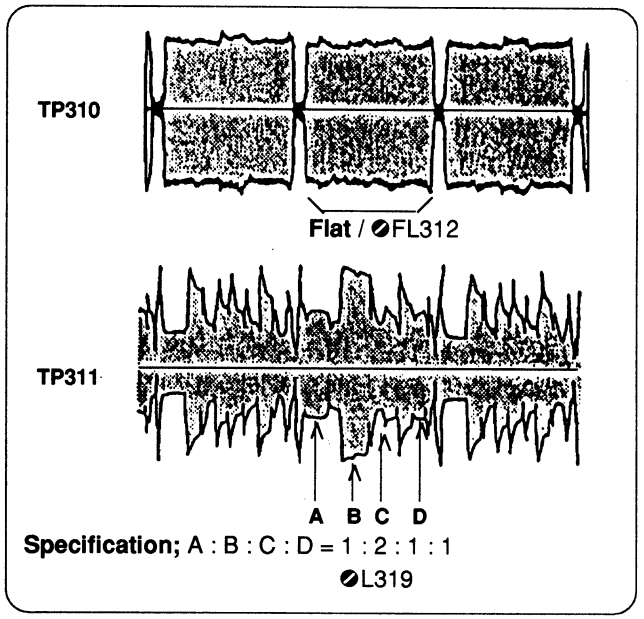
### 8-8-2. Delayed Sync Adjustment

Equipment: Oscilloscope
EXT trig.: TP901/CDE
Mode: E-E
Input Signal: SECAM Color Bars



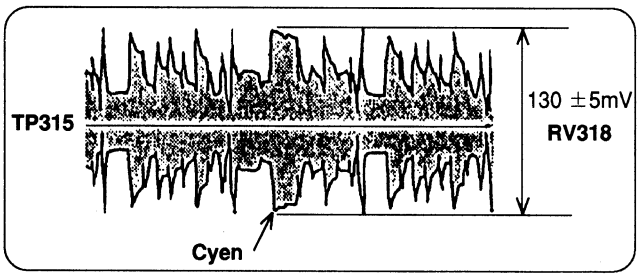
### 8-8-3. Bell Filter Adjustment

Equipment: Oscilloscope
EXT trig.: TP901/CDE
Mode: E-E
Input Signal: SECAM Color Bars




### 8-8-4. Demodulated Chroma Output Adjustment

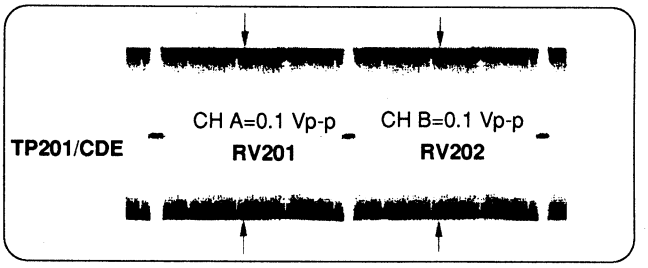
Equipment: Oscilloscope
EXT trig.: TP901/CDE
Mode: E-E
Input Signal: SECAM Color Bars




### 8-8-5. PB Chroma Level Check

Equipment: Oscilloscope
EXT trig.: TP202/CDE
Alignment tape
Mode: PLAY
Input Signal: Needless

1. Thread an alignment tape.
2. Place MMV into FF mode and press STOP button when color bars signal appears on the picture monitor.
3. While playing back the color bars signal, check as follows.
4. **Check/Adjustment**

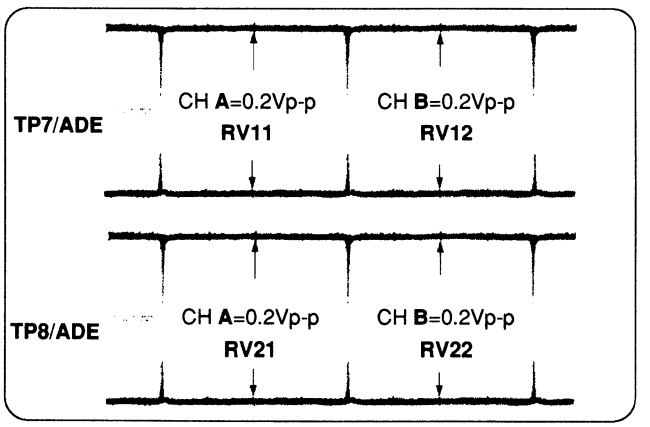



## 8-9. ADE BOARD

### 8-9-1. PB AFM Level Check

Equipment: Oscilloscope
EXT trig.: TP6/ATP
Alignment tape
Mode: PLAY
Input Signal: Needless

1. Thread an alignment tape.
2. Place MMV into FF mode and press STOP button when color bars signal appears on the picture monitor.
3. To set the TAPE LENGTH counter to "Zero", press RESET switch on the function control panel.
4. Place MMV into FF mode and press STOP button when the black burst signal appears on the picture monitor.
5. While playing back the black burst signal, turn TRACKING control for maximum output and then perform the following check or adjustment.
6. **Check/Adjustment**



## 8-10. Hi-Fi MODE REC. CURRENT ADJUSTMENT

### 8-10-1. REC FM Level Check (RFE Board)

Equipment: Oscilloscope
EXT trig.: TP6/ATP
Blank tape
Mode: REC → PLAY
Input Signal: Color Bars
Switch Settings: Hi-Fi switch/meter panel → "ON"
S7/RFE → "4"
S8/RFE → "4"
S1/YMD → "TEST"

1. Thread a blank tape, make a short recording the color bars signal, and rewind the tape.
2. Enter PLAY mode and measure the AFM RF level at TP7 on the ADE board for within specifications.
   **Spec.**: TP7/ADE = $0.2 \pm {}^{0.02}_{0}$ Vp-p (both CH-A/CH-B)
3. If measured level is out of specifications, place MMV into REC mode, and perform the following adjustment.
4. **Adjustment**
   If CH-A level is low:
   decrease TP9/CH-B level for 5% with RV8
   If CH-A level is high:
   increase TP9/CH-B level for 5% with RV8
   If CH-B level is low:
   decrease TP10/CH-A level for 5% with RV10
   If CH-B level is high:
   increase TP10/CH-A level for 5% with RV10
5. Repeat steps 3 and 4 several times until satisfy the specification in step 2.
6. Make a short recording the color bars signal and rewind the tape. While playing back the recorded portion, check as follows.
   **Spec.** TP8/ADE= $0.2 \pm {}^{0.04}_{0}$ Vp-p (both CH-A/CH-B)
7. If not, perform adjustment in simillar manner of steps 3 and 4.
8. Repeat step 2 if RV10 and RV8 have been adjusted in step 7.
   If the level is out of specifications, repeat adjustment until the specifications in steps 2 and 6 are met.
9. If still out of specifications, vary mixture level (at TP1/AMD) of 1.4 MHz and 1.8 MHz components with RV105, and repeat steps 1 to 8.
10. After adjustment, set the following switches as follows.
    S7/RFE → "3"
    S8/RFE → "3"
    S1/YMD → "NOR"

### 8-10-2. REC Chroma Level Check (CDE Board)

Equipment: Oscilloscope
EXT trig.: TP202/CDE
Blank tape
Mode: REC → PLAY
Input Signal: Color Bars
Switch Settings: S6/RFE → See below.

1. Thread a blank tape, make a short recording the color bars signal, and rewind the tape.
2. Enter PLAY mode and measure the croma level at TP201 on the CDE board for 0.1±0.005Vp-p.
3. If measured level is out of specifications, set S6 on the RFE board to OFF, and perform the following adjustment with REC mode.
4. **Adjustment**
   If CH-A level is out of specification, fine adjust the chroma level at TP9 on the RFE board with RV12.
   If CH-B level is out of specification, fine adjust the chroma level at TP10 on the RFE board with RV13.
5. After adjustment, reset S6 on the RFE board to ON, and repeat step 2.

**Note;**
In Hi-Fi mode recording current adjustment, when measuring the recording current before adjustment, slight lower level against the level specified by an alignment tape is output due to head wear.
On section 8-10. Hi-Fi Mode Recording Current Adjustment, video recording current on both CH-A and CH-B are practically set to a low level.
Before adjustment, check the AFM RF levels whether they are optimum or not, and perform adjustment only when the levels measured are not optimum.
In order to prevent deterioration of video S/N, be careful when increasing the level than the level specified by an alignment tape.
It is necessary to replace the head assembly if video S/N is extremely deteriorating or if the head assembly had been used approximatery 500 hours or longer.

## 8-11. NORMAL MODE REC. CURRENT CHECK

### 8-11-1. REC FM Check (RFE Board)

Equipment: Oscilloscope
Blank tape
Mode: REC
Input Signal: Color Bars
Switch Settings: Hi-Fi switch/meter panel → See below.
S1/YMD → "TEST"

1. Set Hi-Fi switch on the meter panel to "ON".
2. Thread a blank tape, enter REC mode, and measure the levels at TP9 and TP10.
3. With Hi-Fi switch on the meter panel "OFF", measure the levels at TP9 and TP10 again, and compare the levels measured in steps 1 and 2. If step 2 level is out of the following specification, adjust RV1 on the RFE board.
**Spec.**: 15 ± 5 %
4. After adjustment, reset S1 on the YMD board to "NOR".

### 8-11-2. REC Chroma Level Check (RFE Board)

Equipment: Oscilloscope
EXT trig.: TP202/CDE
Blank tape
Mode: REC
Input Signal: Color Bars
Switch Settings: Hi-Fi switch/meter panel → See below.
S6/RFE → "OFF"

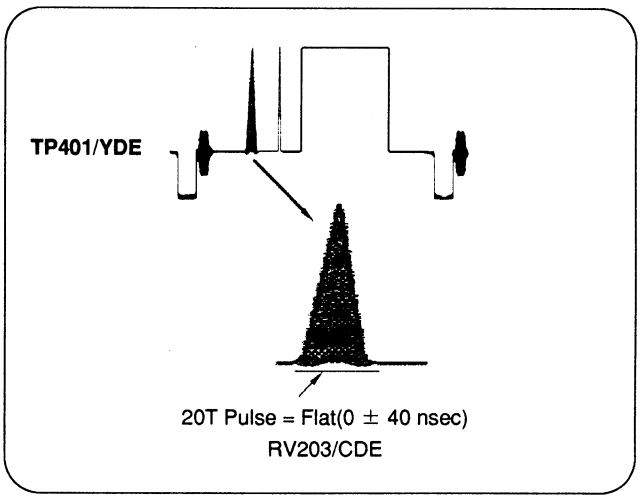
1. Set Hi-Fi switch on the meter panel to "ON".
2. Thread a blank tape, enter REC mode, and measure the levels at TP9 and TP10.
3. With Hi-Fi switch on the meter panel "OFF", measure the levels at TP9 and TP10 again, and compare the levels measured in steps 1 and 2. If step 2 level is out of the following specification, adjust RV16 on the RFE board.
**Spec.**: ±10 % or more
4. After adjustment, reset S6 on the RFE board to "ON" and Hi-Fi switch on the meter panel to "ON".

## 8-12. Y/C OVERALL CHECK

### 8-12-1. PB Y/C Delay Check

Equipment: Oscilloscope
Alignment tape
Mode: PLAY
Input Signal: Needless

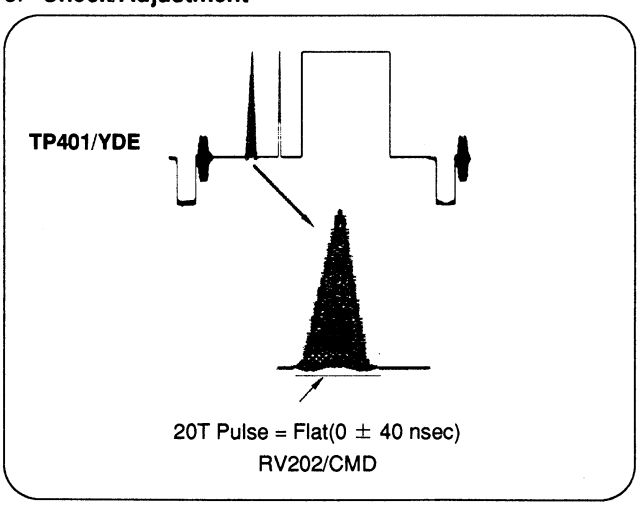
1. Play back the Pulse & Bar signal portion of an alignment tape.
2. **Check/Adjustment**




### 8-12-2. REC Y/C Delay Check

Equipment: Oscilloscope
Blank tape
Mode: REC → PLAY
Input Signal: Pulse & Bar
Switch Settings: S2(ENH)/YMD → "ON"

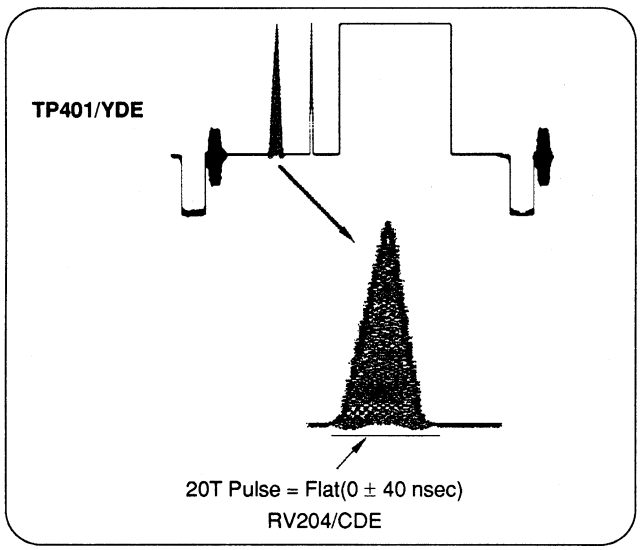
1. Thread a blank tape, make a short recording the Pulse & Bar signal, and rewind the tape.
2. While playing back the recorded portion, check as follows.
3. **Check/Adjustment**



### 8-12-3. E-E Y/C Delay Check

Equipment: Oscilloscope
Blank tape
Mode: E-E
Input Signal: Pulse & Bar
Switch Settings: S2(ENH)/YMD → "ON"

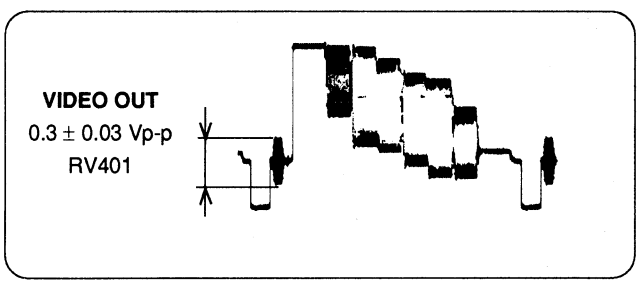
1. Thread a blank tape. With E-E mode, perform as follows.
2. **Check/Adjustment**




### 8-12-4. Burst Level Check (CDE Board)

Equipment: Waveform Monitor
Mode: E-E
Input Signal: Color Bars

1. Connect waveform monitor to VIDEO OUT connector and terminate with 75Ω terminator.
2. **Check/Adjustment**




### 8-12-5. HUE Check (CMD Board)

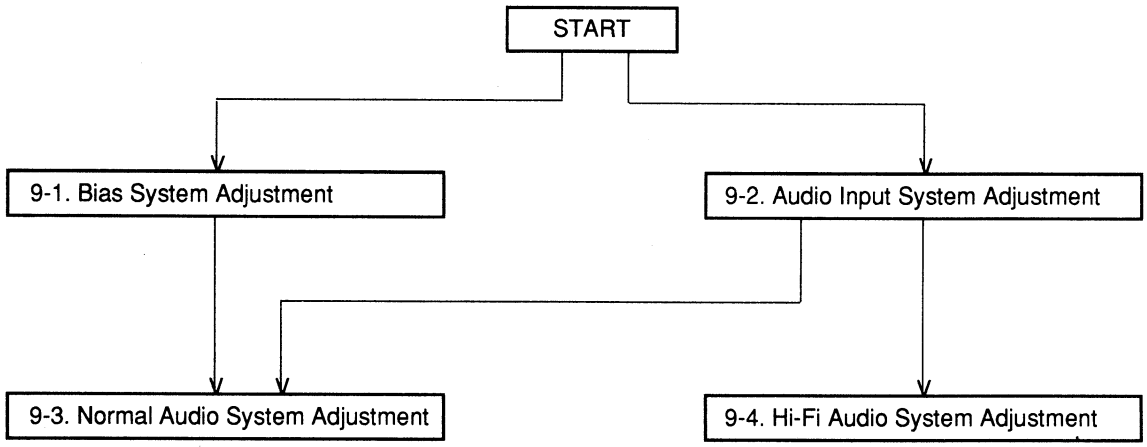
Equipment: Vectorscope (VECTOR mode)
Alignment Tape
Mode: PB → REC/PB
Input Signal: Color Bars

1. Connect vectorscope to VIDEO OUT connector.
2. Play back a color bars portion of alignment tape and measure the "Hue" and "Level" of RED component on vectorscope.
3. Thread the blank tape, make a short recording and rewind the tape.
4. While playing back the recorded portion, check that the RED component on vectorscope meets the follwing specifications. If not, adjust RV402 and RV401 on the CM-MM02 (CMD PAL) board.

**Specifications**: Hue = ± 5°
Level = ± 5%

# SECTION 9
# AUDIO SYSTEM ADJUSTMENTS

**[Audio Signal System Adjustment Procedure]**

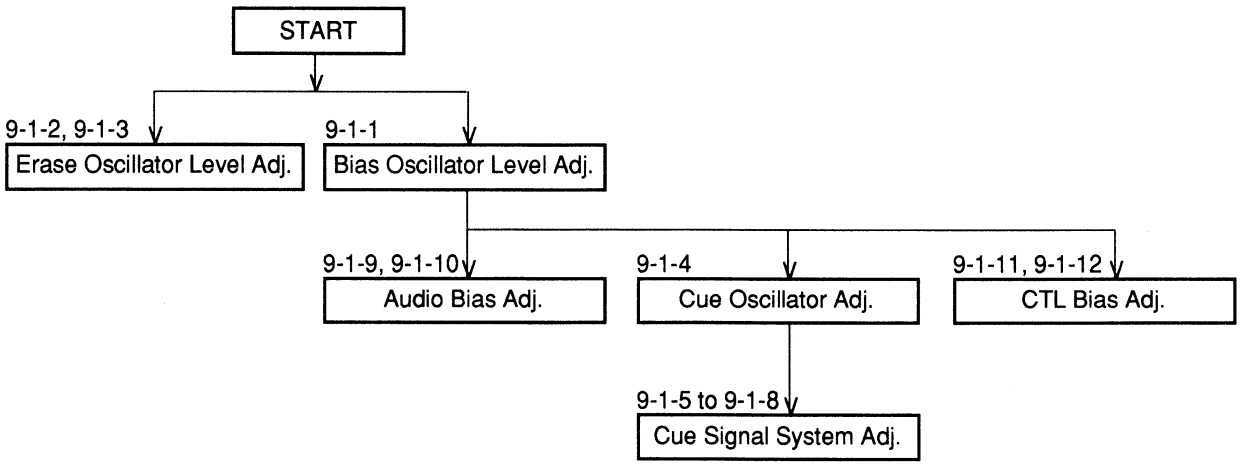



## 9-1. BIAS SYSTEM ADJUSTMENT (BIAS BOARD)

**[Note on adjustment]**

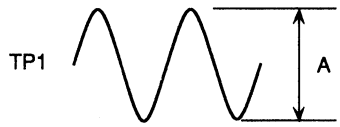
Check that the ACC head adjustments have been completed.

**[Adjustment Procedure]**



### 9-1-1. Bias Oscillator Level Adjustment

Equipment: Oscilloscope
Frequency counter
Mode: REC

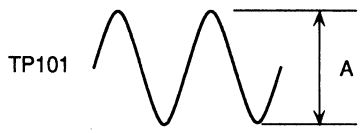



f = 68.75 kHz

**Specification**
A = Maximum level without saturation
⊘LV101
⊘RV1

### 9-1-2. Erase Oscillator Level Adjustment

Equipment: Oscilloscope
Frequency counter
Mode: REC




f = 34.375 kHz

**Specification**
A = Maximum level without saturation
⊘LV601
⊘RV2

### 9-1-3. Erase Level Adjustment

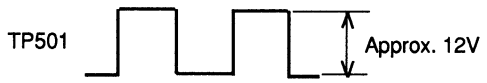
Equipment: Oscilloscope
Mode: REC

**Specification**
TP102 = Maximum level
⊘LV102

### 9-1-4. Cue Oscillator Frequency Adjustment

Equipment: Oscilloscope
Mode: REC

Press START CUE button and perform the following adjustment.

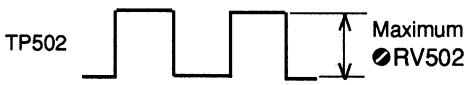



**Specification**
TP501 = 65 ± 5 Hz
⊘RV501

### 9-1-5. Cue Recording Level Adjustment

Equipment: Oscilloscope
Mode: REC

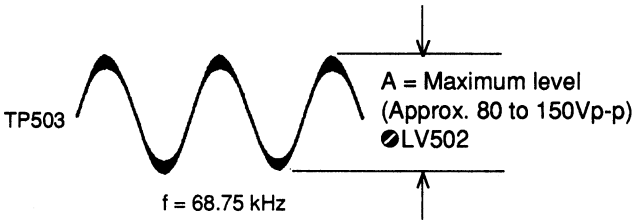
Press START CUE button and perform the following adjustment.




### 9-1-6. Cue Bias Adjustment

Equipment: Oscilloscope
Frequency counter
Mode: REC

Press START CUE button and perform the following adjustment.

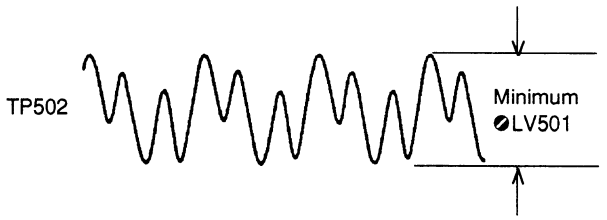



f = 68.75 kHz

### 9-1-7. Cue Recording Bias Trap Adjustment

Equipment: Oscilloscope
Mode: REC

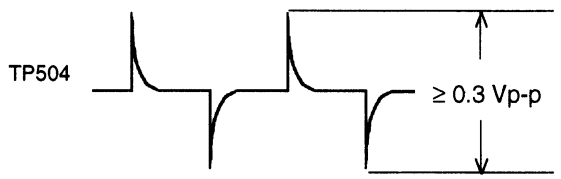
Press START CUE button and perform the following adjustment.




### 9-1-8. Cue Playback Level Check

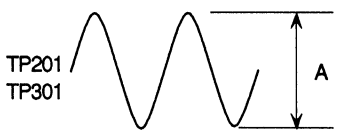
Equipment: Oscilloscope
Mode: REC PLAY

1. Press START CUE button and make a short recording of a cue signal.
2. Rewind the tape and enter PLAY mode.




### 9-1-9. Audio Bias Level Adjustment

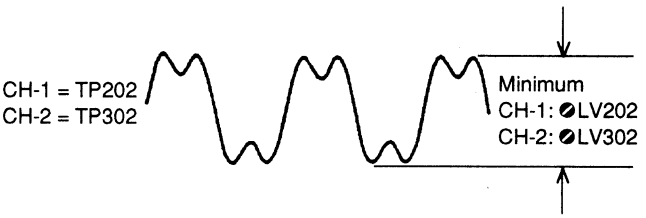
Equipment: Oscilloscope
Mode: REC




CH-1: TP201 = Maximum level
⊘LV201
CH-2: TP301 = Maximum level
⊘LV301

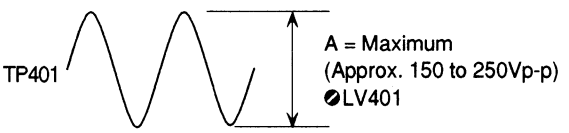
### 9-1-10.Audio Bias Trap Adjustment

Equipment: Oscilloscope
Mode: REC



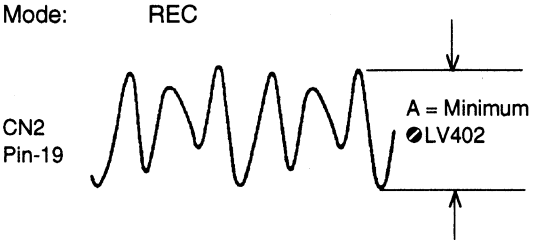

### 9-1-11.CTL Bias Level Adjustment

Equipment: Oscilloscope
Mode: REC




### 9-1-12.CTL Bias Trap Adjustment

Equipment: Oscilloscope
Mode: REC



## 9-2. AUDIO INPUT SYSTEM ADJUSTMENT

### 9-2-1. Line Input Check (RP Board)

Equipment: Level meter
Switch setting: SW301/RP board = ON
SW302/RP board = ON
Input signal: CH-1, CH-2, CH-3, SPARE = 400 Hz/+4 dBm

CH-1: IC301 Pin-1 = +2 ± 0.2 dBs (2.76 Vp-p)
CH-2: IC301 Pin-7 = +2 ± 0.2 dBs (2.76 Vp-p)
CH-3: IC302 Pin-1 = +2 ± 0.2 dBs (2.76 Vp-p)
SPARE: IC302 Pin-7 = +2 ± 0.2 dBs (2.76 Vp-p)

### 9-2-2. Line Input Level Adjustment (VR Board)

Equipment: Level meter
Switch setting: Audio Level Control/Control panel = PUSH
Input signal: CH-1, CH-2, CH-3, SPARE = 400 Hz/+4 dBm

CH-1: TP1 = –15 ± 0.1 dBs (390 mVp-p) (⊘RV1)
CH-2: TP2 = –15 ± 0.1 dBs (390 mVp-p) (⊘RV2)
CH-3: TP3 = –15 ± 0.1 dBs (390 mVp-p) (⊘RV3)
SPARE: TP4 = –15 ± 0.1 dBs (390 mVp-p) (⊘RV4)

## 9-3. NORMAL AUDIO SYSTEM ADJUSTMENT

**[Notes on adjustment]**
Perform the ACC head, monitor head and BIAS board adjustments completely prior to "Normal Audio System Adjustments".

Input the signals from the AUDIO LINE INPUT CH-1 (CH-L) and CH-2 (CH-R) connectors on the connector panel.

Be sure to set the switches on the audio control panel as follows:
Hi-Fi Audio Select: OFF
Normal Audio Select: CH-1/CH-2
Audio OUT/PHONE: NORMAL

In this adjustment, CH-1 is called CH-L and CH-2 is called CH-R.

When performing adjustments, use the monitor head.

**[Preparation]**
1. When performing adjustment, use a test signal fixture VP-106. Regarding the operation of VP-106, see section 5.
2. The input signal level can be adjusted by the following potentiometers:
   Test signal fixture VP-106: ⊘RV2 (BUR LEVEL)
   Hi-Fi AUDIO control/Audio control panel
   When SW2 (AGC IN/OUT) on the AUD(L) and AUD(R) boards is in "OUT" position, adjust the input level with ⊘RV2 (AGC OUT) on the AUD(L) and AUD(R) boards.

### 9-3-1. Input Amplifier Adjustment (AUD Board)

Equipment: Level meter
Mode: STOP
Switch setting: SW3(REC MONI)/AUD board = E-E
Input signal: TP1 = 400 Hz/–15 ± 0.2 dBs (390 ± 10mVp-p)

TP5 = –5 ± 0.2 dBs (1.23 ± 0.03Vp-p)(⊘RV1)

### 9-3-2. Meter Amplifier Adjustment (AUD Board)

Equipment: Unnecessary
Mode: STOP
Switch setting: SW2(AGC IN/OUT) = IN
SW3(REC MONI) = E-E

(1) Input signal setting
TP5 = 400 Hz/–15 ± 0.2dBs (390 ± 10 mVp-p)
(2) Meter offset adjustment
Audio level meter = –10 ± 0.5 dB (⊘RV14)
(3) Input signal setting
TP5 = 400 Hz/–5 ± 0.2dBs (1.23 ± 0.03 Vp-p)
(4) Meter offset adjustment
Audio level meter = 0 ± 0.2 dB (⊘RV5)
(5) After the adjustment, check step (2). If it is out of specifications, repeat steps (1) to (4).

### 9-3-3. AGC Level Adjustment (AUD Board)

**This adjustment is required only for the MMV800.**

Equipment: Level meter
Mode: STOP
Switch setting: SW2(AGC IN/OUT) = IN
SW3(REC MONI) = E-E
Input signal: TP1 = 400 Hz/–15 ± 0.2 dBs (390 ± 10mVp-p)

TP4: CH-L = CH-R (⊘RV3/AUD(R))

### 9-3-4. AGC Amplifier Adjustment (AUD Board)

Equipment: Level meter
Mode: STOP
Switch setting: SW2(AGC IN/OUT) = IN
SW3(REC MONI) = E-E
Input signal: TP1 = 400 Hz/–15 ± 0.2 dBs (390 ± 10mVp-p)

TP6 = –5 ± 0.2dBs(1.23 ± 0.03 Vp-p) (⊘RV4)

### 9-3-5. AGC Operation Check (AUD Board)

Equipment: Level meter
Mode: STOP
Switch setting: SW2(AGC IN/OUT) = IN
SW3(REC MONI) = E-E

(1) Input signal setting
TP1 = 400 Hz/–5 ± 0.2dBs (1.23 ± 0.03 Vp-p)
(2) AGC operation check 1
TP6 = –3 ± 2dBs (1.55 ± 0.4 Vp-p)
(3) Input signal setting
TP1 = 400 Hz/–25 ± 0.2dBs (123 ± 3 mVp-p)
(4) AGC operation check 2
TP6 = –8 ± 3dBs (870 ± 360 mVp-p)

### 9-3-6. Line Output Level Adjustment (AUD Board)

Equipment: Level meter
Mode: STOP
Switch setting: SW2(AGC IN/OUT) = OUT
SW3(REC MONI) = E-E
Input signal: TP6 = 400 Hz/-5 ± 0.2 dBs (1.23 ± 0.03 Vp-p)

TP8 = –10 ± 0.2 dBs (693 ± 15 mVp-p)(⊘RV9)

**Note: Perform the following adjustments after the ACC head azimuth adjustment, ACC head height adjustment, monitor head azimuth adjustment, and monitor head height adjustment have been completed.**

### 9-3-7. Playback Equalizer Adjustment (AUD Board)

Equipment: Oscilloscope
Alignment tape: MMV800 = VP800
MMV810 = VP810
MMV802 = VP820
Mode: PLAY
Switch & control setting:
SW4(PB MONI) = PB H
S601 = ON
RV10 = Mid-range

(1) Connect scope probe to TP10.
(2) While playing back an alignment tape, adjust the level of each frequency components for flat against 400 Hz with the following potentiometers.

| | MMV800/MMV802 | MMV810 |
|---|---|---|
| ⊘RV601 | 100 Hz | 100 Hz |
| ⊘RV602 | 400 Hz | 400 Hz |
| ⊘RV603 | 1 kHz, 3 kHz | 1 kHz, 3 kHz |
| ⊘RV604 | 8 kHz | 5 kHz |
| ⊘RV605 | 10 kHz | --------- |

### 9-3-8. Playback Gain Adjustment (AUD Board)

Equipment: Oscilloscope
Alignment tape: MMV800 = VP800
MMV810 = VP810
MMV802 = VP820
Mode: PLAY
Switch setting: SW4(PB MONI) = PB H

While playing back an alignment tape, adjust the 400 Hz level.
MMV800: TP10 = 276 ± 20 mVp-p (–18 ± 0.5 dBs)(⊘RV11)
MMV810: TP10 = 390 mVp-p (–15 dBs)(⊘RV11)
MMV802: TP10 = 350 mVp-p (–16.3 dBs)(⊘RV11)

After the adjustment, check section 9-3-7. If it is out of specifications, readjust from section 9-3-7.

### 9-3-9. Bias Trap Adjustment (BIAS Board)

Equipment: Oscilloscope
Mode: REC
Switch setting: SW2(AGC IN/OUT) = OUT
Input signal: TP6 = 400 Hz (–5 ± 0.1 dBs)

Connect scope probe to pin-18 of BIAS board edge-connector. Adjust the following variable inductors for minimum bias leakage.
CH-L: ⊘LV202 (MMV800/MMV810/MMV802)
CH-R: ⊘LV302 (MMV800/MMV802)

### 9-3-10.Bias Setting (AUD Board)

Equipment: Oscilloscope
Mode: REC
Switch setting: SW2(AGC IN/OUT) = OUT
SW3(REC MONI) = PB H
SW4(PB MONI) = PB H
Input signal: TP6 = 400 Hz/390 ± 20 mVp-p (–15 ± 0.5 dBs)

(1) Connect scope probe to TP10.
(2) Turn ⊘RV12 (BIAS ADJ) fully counterclockwise direction.
(3) With REC mode, slowly turn ⊘RV12 in the clockwise direction and stops where the level becomes 1 dB over the peak level.
(4) TP10: 400 Hz = 390 ± 20 mVp-p (–15 ± 0.5 dBs)(⊘RV6)
(5) After the adjustment, check step (2). If it is out of specifications, repeat from step (1).

### 9-3-11.Bias Level Check (AUD Board) [only MMV800]

Equipment: Level meter
Distortion meter
Mode: REC
Switch setting: SW2(AGC IN/OUT) = OUT
SW3(REC MONI) = PB H
SW4(PB MONI) = PB H
Input signal: TP6 = 100 Hz/+3 ± 0.5 dBs (3.1 ± 0.2 Vp-p)

(1) Connect distortion meter to TP10. With REC mode, check that the distortion is within 9%.
If the distortion is more than 9%, proceed to the next steps.
(2) Change the input signal of TP6 as follows:
TP6 = 400 Hz/–15 ± 0.5 dBs (390 ± 20 mVp-p)
Enter REC mode and measure the distortion at TP10.
(3) Change the input signal of TP6 as follows:
TP6 = 100 Hz/+3 ± 0.5 dBs (3.1 ± 0.2 Vp-p)
With REC mode, slowly turn ⊘RV12 (BIAS) in the clockwise direction and stops where the distortion at TP10 becomes 9% or less.
(4) Change the input signal of TP6 as follows:
TP6 = 400 Hz/–15 ± 0.5 dBs (390 ± 20 mVp-p)
Enter REC mode and measure the distortion at TP10. If measured distortion does not match to the distortion that was measured in step (2), adjust level with ⊘RV6.
After adjustment, check step (1). If the distortion is more than 9%, readjust from step (1).

### 9-3-12. Recording Level and Frequency Response Adjustment (AUD Board)

Equipment: Oscilloscope
Mode: REC
Switch setting: SW2(AGC IN/OUT) = OUT
SW3(REC MONI) = PB H
SW4(PB MONI) = PB H
Input signal: MMV800:TP6=11kHz/123±10 mVp-p(–25±0.1dBs)
MMV810:TP6=7kHz/123±10 mVp-p(–25±0.1dBs)
MMV802:TP6=11.7kHz/123±10 mVp-p(–25±0.1dBs)

(1) Set REC EQ control (⊘RV8) to maximum clockwise.
(2) Enter REC mode. Adjust ⊘LV2 so that 11 kHz (MMV800) / 7 kHz (MMV810)/11.7 kHz (MMV802) level at TP7 is maximum.
(3) Change the signal input to TP6 as follows:
TP6 = Multi-burst/390 ± 10 mVp-p (–15.0 ± 0.2 dBs)
(4) Enter REC mode and fine adjust the 400 Hz recording level at TP10 with ⊘RV6.
TP10 = 390 ± 10 mVp-p (–15 ± 0.2dBs)
(5) Enter REC mode. Adjust the following controls so that the playback waveform at TP10 is flat.
MMV800/802: 3 kHz / ⊘RV302
10 kHz / ⊘RV8
MMV810: 1 kHz / ⊘RV7
5kHz / ⊘RV8
(6) If the 10 kHz (5 kHz for MMV810) level that was measured in step (5) has been varied more than ±2 dB against the 400 Hz reference level measured in section 9-3-7, readjust the following REC EQ controls.
MMV800/802: 3 kHz / ⊘RV302
10 kHz / ⊘RV8
MMV810: 1 kHz / ⊘RV7
5kHz / ⊘RV8
(7) After adjustment, check step (4). If the 400 Hz recording level is out of specifications, perform steps (4) through (6) again.

### 9-3-13.Copy Level Adjustment (AUD Board)

**[ for MMV800 ]**

Equipment: VHS VCR (with stereo audio function)
Oscilloscope
Mode: COPY/PLAY
Switch setting: SW2(AGC IN/OUT) = OUT
Input signal: TP6 = Multi-burst/–15.0 ± 0.2dBs(390±20mVp-p)
TP6 = 100 Hz/+3 ± 0.2dBs (3.1 ± 0.1 Vp-p)

(1) Make copy after recording.
(2) Play back the copied portion of the videocassette tape with VHS VCR, and check and compare the 400Hz, 1kHz, and 8kHz components with the values specified by an alignment tape VFM8080HMF.
With regard to the low (100 Hz), mid (3 kHz) and high (10 kHz) frequency components, inputs the multiburst(-10dB) signal to the reference VHS VCR. Make a short recording, play it back, and compare the frequency response with the values specified by an alignment tape VFM8080HMF.
If JVC's alignment tape MH-6 is available, measure the 100 Hz and 10 kHz levels as against the 400 Hz level. Then compare and check whether the copied tape levels are inside the specifications measured.
***Specifications when copying with HSP800:***
Alignment tape output = +3 ± 2dBs
(The level is increased for 3 dB with monaural loss compensation.)
(3) Play back the copied portion of the videocassette tape with VHS VCR and measure so that the 100 Hz distortion is within 19%.

**[ for MMV810 ]**

Equipment: VHS VCR (with stereo audio function)
Oscilloscope
Mode: COPY/PLAY
Switch setting: SW2(AGC IN/OUT) = OUT
Input signal: TP6 = Multi-burst/–15.0 ± 0.2dBs(390±20mVp-p)

(1) Make copy after recording.
(2) Play back the copied portion of the videocassette tape with VHS VCR, and compare the level as against the self-recording/playback tape.
***Specifications when copying with HSP5000C:***
Self-recording/playback level of VHS VCR ± 2dBs
If level is out of specifications, perform the following adjustment.

**[ for MMV802 ]**

Equipment: VHS VCR (with stereo audio function)
Oscilloscope
Mode: COPY/PLAY
Switch setting: SW2(AGC IN/OUT) = OUT side
Input signal: TP6 = Multi-burst/350mVp-p (–16.3 ± 0.1 dBs)

(1) Make copy after recording.
(2) Play back the copied portion of the videocassette tape with VHS recorder and measure the 400Hz, 1kHz and 8kHz portions whether meet the specifications of an alignment tape VFM8180HMDH With regard to the low (100Hz), mid (3kHz) and high (10kHz) ranges of frequency response, input the multi-burst/–10dB to the customer's reference VHS recorder. Make recording and play it back, then compare the frequency response whether they are inside the specifications of the reference VHS recorder.
(If JVC's alignment tape MH-6 is available, measure the 100Hz and 10kHz levels in regard to the 400Hz level. Then compare and check whether the copied tape levels are inside the specifications measured.)
***Specifications when copying with HSP800:***
Alignment tape output = 0 ± 2dBs

### 9-3-14.Audio Recording System Mid & High Frequency Response Final Adjustment (AUD Board)

Equipment: Oscilloscope
Mode: REC
Switch setting: SW2(AGC IN/OUT) = OUT
SW3(REC MONI) = PB H
SW4(PB MONI) = PB H
Input signal: TP6 = Multi-burst/390±20mVp-p(–15.0 ± 0.2dBs)

(1) Connect scope probe to TP10 and adjust the frequency response with the following potentiometers.

| | | |
|---|---|---|
| **MMV800/802** | ⊘RV6: | Recording Level |
| | ⊘RV302: | 3 kHz Peaking Level |
| | ⊘RV8: | 10 kHz Peaking Level |
| **MMV810** | ⊘RV6: | Recording Level |
| | ⊘RV7: | 1 kHz Peaking Level |
| | ⊘RV8: | 5 kHz Peaking Level |

(2) If 10 kHz (5 kHz for MMV810) is not enough, adjust the peaking frequency in accordance with steps (1) and (2) of section 9-3-12.

### 9-3-15.Playback Output Adjustment (AUD Board)

Equipment: Level meter
Mode: REC ⇒ PLAY
Switch setting: SW2(AGC IN/OUT) = OUT
SW4(PB MONI) = R/P H
Input signal: TP6 = 400 Hz/-5 ± 0.2 dBs(1.23 ± 0.03Vp-p)

(1) Make a short recording. Play back the recording and adjust the playback level as follows.

TP8 = –10 ± 0.2 dBs (693 ± 15 mVp-p)(⊘RV15)

## 9-4. Hi-Fi AUDIO SYSTEM ADJUSTMENT

### 9-4-1. Preparation Before Adjustment

- Input the signal from the AUDIO LINE INPUT CH-1 (CH-L) and CH-2 (CH-R) connectors on the connector panel.
- The input signal is specified by the input section of the AMD board. Also, the input signal can be adjusted by pulling the audio level control knob on the audio level control panel.
- Before adjustment, set the following switches as follows:
  Hi-Fi Audio Select Button: ON
  Audio OUT/PHONE Button: Hi-Fi

### 9-4-2. dbx Sensitivity Adjustment (AMD Board)

Equipment: Digital voltmeter or Oscilloscope
Mode: STOP
Input signal: No signal

**Specifications:**
Voltage across TP6 - TP7 = 15 ± 2 mV / ⊘RV5

**Note:** Since TP6 is a test point for power voltage, be very careful not to connect TP6 to ground.

### 9-4-3. FM Carrier Center Frequency Adjustment (AMD Board)

Equipment: Frequency counter
Mode: STOP
Input signal: No signal

**Specifications:**
CH-1: TP103 = 1300 ± 5 kHz / ⊘RV104
CH-2: TP203 = 1700 ± 5 kHz / ⊘RV204 } MMV800/810

CH-1: TP103 = 1400 ± 5 kHz / ⊘RV104
CH-2: TP203 = 1800 ± 5 kHz / ⊘RV204 } MMV802

### 9-4-4. dbx Input Level Adjustment (AMD Board)

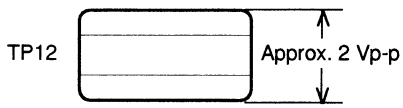
Equipment: Level meter
Mode: STOP
Input signal: 1 kHz to AUDIO LINE INPUT
CH-1:Edge CN Pin-20= –15±0.1dBs(390 mVp-p)
CH-2:Edge CN Pin-22= –15±0.1dBs(390 mVp-p)

(1) Turn ⊘RV106 (CH-1) and ⊘RV206 (CH-2) maximum counterclockwise.
(2) **Adjustment**
CH-1: TP101 = –30 ± 0.1 dBs (69 mVp-p) / ⊘RV101
CH-2: TP201 = –30 ± 0.1 dBs (69 mVp-p) / ⊘RV201

### 9-4-5. E-E RF Output Check (ADE Board)

Equipment: Oscilloscope
Mode: STOP
Input signal: No signal

**Specifications:**
Connect scope probe to TP12 on the ADE board and check that a mixed waveform (1.3 MHz + 1.7 MHz) can be observed on the scope.




### 9-4-6. FM Carrier Check (ADE Board)

Equipment: Oscilloscope
Frequency counter
Mode: STOP
Input signal: No signal

**Specifications:**

f = 1.3 MHz MMV800/810
f = 1.4 MHz MMV802

f = 1.7 MHz MMV800/810
f = 1.8 MHz MMV802

### 9-4-7. dbx Sensitivity Adjustment (ADE Board)

Equipment: Digital voltmeter or Oscilloscope
Mode: STOP
Input signal: No signal

**Specifications:**
Voltage across TP6 - TP7 = 15 ± 2 mV / ⊘RV5

**Note:** Since TP6 is a test point for power voltage, be very careful not to connect TP6 to ground.

### 9-4-8. Playback Sensitivity Adjustment (ADE Board)

Equipment: Level meter
Alignment tape VP800
Mode: PLAY

**Specifications:**
CH-1: TP3 = –30 ± 0.1 dBs (69 mVp-p) / ⊘RV3
CH-2: TP4 = –30 ± 0.1 dBs (69 mVp-p) / ⊘RV4

### 9-4-9. FM Deviation Adjustment (AMD Board)

Equipment: Level meter
Mode: STOP
Input signal: 1 kHz to AUDIO LINE INPUT
CH-1:Edge CN Pin-20= −15±0.1dBs(390 mVp-p)
CH-2:Edge CN Pin-22= −15±0.1dBs(390 mVp-p)

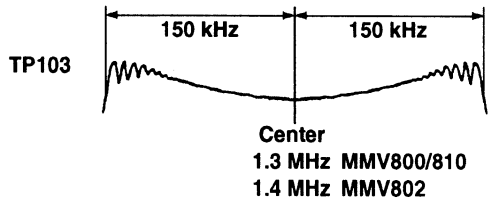
**Specifications**

CH-1: TP3(ADE) = −30 ± 0.1 dBs (69 mVp-p) / ⊘RV103
CH-2: TP4(ADE) = −30 ± 0.1 dBs (69 mVp-p) / ⊘RV203

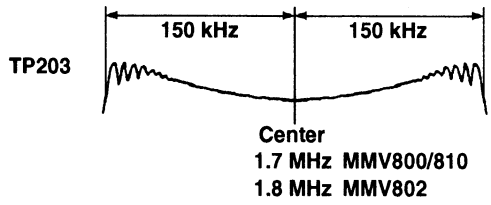
### 9-4-10. FM Limiter Adjustment (AMD Board)

Equipment: Spectram analyzer
Mode: STOP
Input signal: 1 kHz to AUDIO LINE INPUT
CH-1:Edge CN Pin-20= −5±0.1dBs(1.23 Vp-p)
CH-2:Edge CN Pin-22= −5±0.1dBs(1.23 Vp-p)

(1) Turn ⊘RV101 (CH-1) and ⊘RV201 (CH-2) maximum clockwise.
(2) **Adjustments**
CH-1: TP103 = 300 ± 5 kHz / ⊘RV102




CH-2: TP203 = 300 ± 5 kHz / ⊘RV202

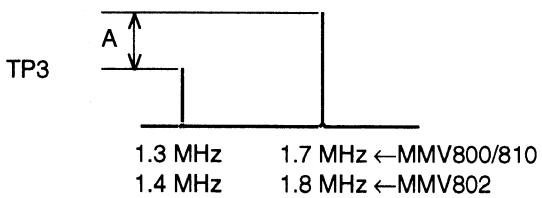



(3) After adjustment, perform section 9-4-4 again.

### 9-4-11. Carrier Mixing Adjustment (AMD Board)

Equipment: Spectram analyzer
Mode: STOP
Input signal: No signal

(1) Turn ⊘RV205 maximum clockwise to set 1.7 MHz level to maximum.
(2) **Adjustment**
A = 12 ± 0.5 dB / ⊘RV105




### 9-4-12. Recording Current Adjustment (AMD Board)

Equipment: Oscilloscope
Mode: REC
Switch setting: SW1 (REC SW) = ON
SW2 (A-CH REC) = ON
SW3 (B-CH REC) = ON
Input signal: No signal

**Specifications**

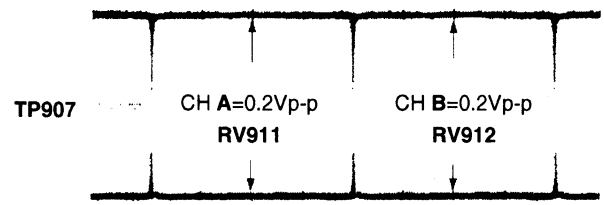
CH-A/TP1: A =Attached data with replacement drum x 5 mVp-p / ⊘RV1
CH-B/TP2: A =Attached data with replacement drum x 5 mVp-p / ⊘RV2

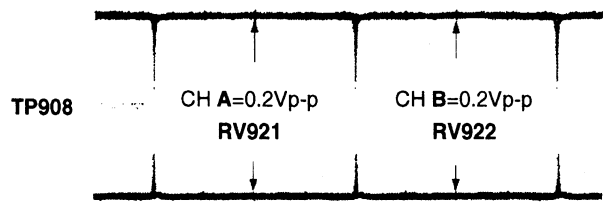
***Note:*** *Voltage of "Recording Current × 5 [mVp-p]" can be observed at TP1 and TP2 on the AMD board.*

### 9-4-13. PB AFM Level Adjustment (ADE Board)

Equipment: Oscilloscope
EXT trig: TP906/ADE
Alignment tape
Mode: PLAY
Input signal: No signal

(1) Thread an alignment tape.
(2) Place the MMV into FF mode and press STOP button when color bars signal appears on the picture monitor.
(3) To set the TAPE LENGTH counter to "zero", press RESET switch on the function control panel.
(4) Place the MMV into FF mode and press STOP button when the black burst signal appears on the picture monitor.
(5) While playing back the black burst signal, turn TRACKING control for maximum output and then perform the following adjustment.
(6) **Adjustment**



### 9-4-14. Hi-Fi Mode Recording Current Adjustment (RFE Board)

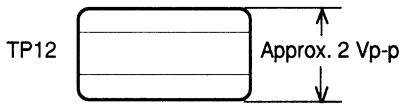
Equipment: Oscilloscope
EXT trig.: TP906/ADE
Blank tape
Mode: REC → PLAY
Input Signal: Color Bars
Switch Settings:
Hi-Fi switch/meter panel → "ON"
S7/RFE → "4"
S8/RFE → "4"
S1/YMD →"TEST"

1. Thread a blank tape, make a short recording the color bars signal, and rewind the tape.
2. Enter PLAY mode and measure the AFM RF level at TP907 on the ADE board for within specifications.
   **Spec.**: TP907/ADE = $0.2 \pm {}^{0.02}_{0}$ Vp-p (both CH-A/CH-B)
3. If measured level is out of specifications, place MMV into REC mode, and perform the following adjustment.
4. **Adjustment**
   If CH-A level is low:
   MMV800: decrease TP10/CH-B level for 5% with RV10
   MMV810: decrease TP9/CH-A level for 5% with RV8
   If CH-A level is high:
   MMV800: increase TP10/CH-B level for 5% with RV10
   MMV810: increase TP9/CH-A level for 5% with RV8
   If CH-B level is low:
   MMV800: decrease TP9/CH-A level for 5% with RV8
   MMV810: decrease TP10/CH-B level for 5% with RV10
   If CH-B level is high:
   MMV800: increase TP9/CH-A level for 5% with RV8
   MMV810: increase TP10/CH-B level for 5% with RV10
5. Repeat steps 3 and 4 several times until satisfy the specification in step 2.
6. Make a short recording the color bars signal and rewind the tape. While playing back the recorded portion, check as follows.
   **Spec.** TP908/ADE= $0.2 \pm {}^{0.04}_{0}$ Vp-p (both CH-A/CH-B)
7. If not, perform adjustment in simillar manner of steps 3 and 4.
8. Repeat step 2 if RV10 and RV8 have been adjusted in step 7.
   If the level is out of specifications, repeat adjustment until the specifications in steps 2 and 6 are met.
9. If still out of specifications, vary mixture level (at TP1/AMD) of 1.3 MHz and 1.7 MHz components with RV105, and repeat steps 1 to 8.
10. After adjustment, set the following switches as follows.
    S7/RFE → "2"
    S8/RFE → "2"
    S1/YMD → "NOR"

### 9-4-15. E-E RF Output Check (ADE Board)

Equipment: Oscilloscope
Mode: STOP
Input signal: No signal

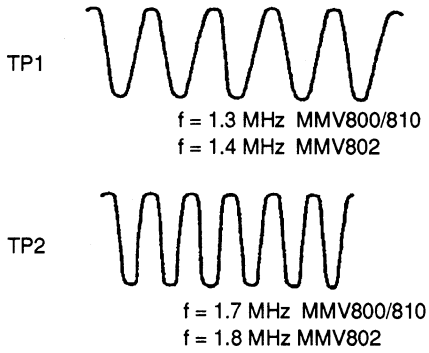
**Specifications:**
Connect scope probe to TP12 on the ADE board and check that a mixed waveform (1.3 MHz + 1.7 MHz)→for MMV800/810 (1.4 MHz + 1.8 MHz)→for MMV802 can be observed on the scope.




### 9-4-16. FM Carrier Check (ADE Board)

Equipment: Oscilloscope
Frequency counter
Mode: STOP
Input signal: No signal

**Specifications:**




### 9-4-17. dbx Sensitivity Adjustment (ADE Board)

Equipment: Digital voltmeter or Oscilloscope
Mode: STOP
Input signal: No signal

**Specifications:**
Voltage across TP6 - TP7 = 15 ± 2 mV / ⊘RV5

**Note:** Since TP6 is a test point for power voltage, be very careful not to connect TP6 to ground.

### 9-4-18. Playback Sensitivity Adjustment (ADE Board)

Equipment: Level meter
Alignment tape VP800
Mode: PLAY

**Specifications:**
CH-1: TP3 = –30 ± 0.1 dBs (69 mVp-p) / ⊘RV3
CH-2: TP4 = –30 ± 0.1 dBs (69 mVp-p) / ⊘RV4

### 9-4-19. Line Output Level Adjustment (ADE Board)

Equipment: Level meter
Mode: STOP
Input signal: 1 kHz to AUDIO LINE INPUT
CH-1:Edge CN Pin-20/AMD = −15±0.1dBs(390 mVp-p)
CH-2:Edge CN Pin-22/AMD = −15±0.1dBs(390 mVp-p)

**Specifications:**
CH-1: TP9 = −10 ± 0.1 dBs (693 mVp-p) / ⊘RV6
CH-2: TP10 = −10 ± 0.1 dBs (693 mVp-p) / ⊘RV7

### 9-4-20. Meter Amplifier Adjustment (ADE Board)

Equipment: Unnecessary
Mode: STOP

**Step 1**
Input signal: 1 kHz to AUDIO LINE INPUT
CH-1:Edge CN Pin-20/AMD = −25±0.1dBs(123 mVp-p)
CH-2:Edge CN Pin-22/AMD = −25±0.1dBs(123 mVp-p)
**Specifications:**
CH-1: Audio Level Meter = −10 ± 0.2 dBs / ⊘RV9
CH-2: Audio Level Meter = −10 ± 0.2 dBs / ⊘RV11

**Step 2**
Input signal: 1 kHz to AUDIO LINE INPUT
CH-1:Edge CN Pin-20/AMD = −15±0.1dBs(390 mVp-p)
CH-2:Edge CN Pin-22/AMD = −15±0.1dBs(390 mVp-p)
**Specifications:**
CH-1: Audio Level Meter = −10 ± 0.2 dBs / ⊘RV8
CH-2: Audio Level Meter = −10 ± 0.2 dBs / ⊘RV10

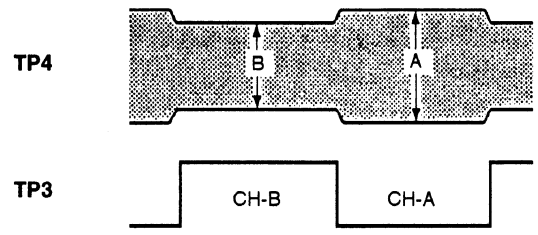
After adjustment, check step 1. If it is out of specifications, readjust steps 1 and 2.

### 9-4-21.PB RF Output Balance Adjustment (APR Board)

Equipment: Oscilloscope
Mode: REC ⇒ PLAY
Switch setting: SW1(REC) = ON
SW2(A-CH REC) = ON
SW3(B-CH REC) = ON
Input signal: No signal

Make a short recording. While playing back the recorded portion, perform the following adjustment.

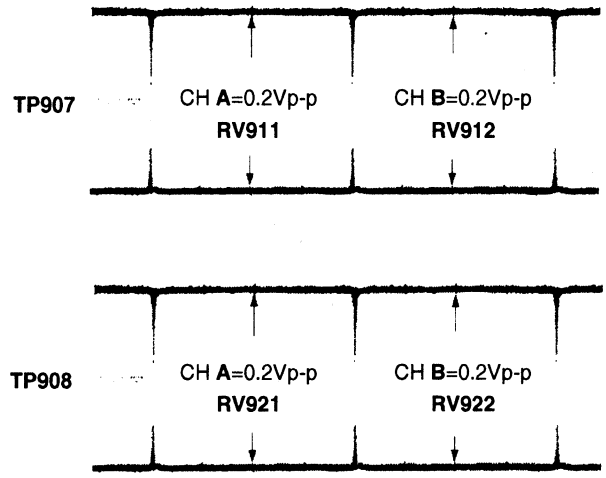
**Specifications:**
TP4: A = B / ⊘RV6




### 9-4-22. PB AFM Level Adjustment (ADE Board)

Equipment: Oscilloscope
EXT trig: TP906/ADE
Alignment tape
Mode: PLAY
Input signal: No signal

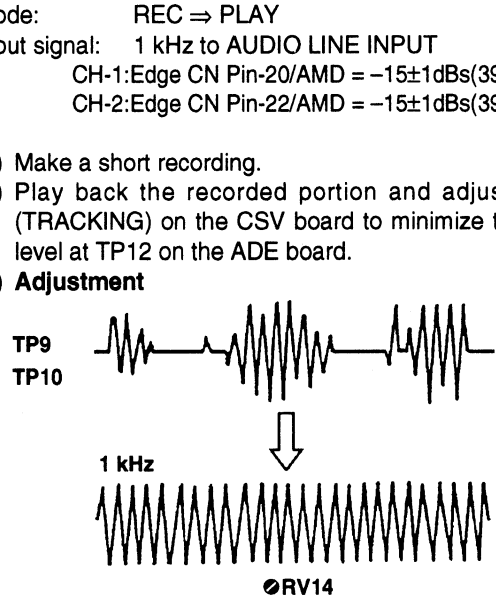
(1) Thread an alignment tape.
(2) Place the MMV into FF mode and press STOP button when color bars signal appears on the picture monitor.
(3) To set the TAPE LENGTH counter to "zero", press RESET switch on the function control panel.
(4) Place the MMV into FF mode and press STOP button when the black burst signal appears on the picture monitor.
(5) While playing back the black burst signal, turn TRACKING control for maximum output and then perform the following adjustment.
(6) **Adjustment**




### 9-4-23. DOC Level Adjustment (ADE Board)

Equipment: Oscilloscope
Mode: REC ⇒ PLAY
Input signal: 1 kHz to AUDIO LINE INPUT
CH-1:Edge CN Pin-20/AMD = −15±1dBs(390 mVp-p)
CH-2:Edge CN Pin-22/AMD = −15±1dBs(390 mVp-p)

(1) Make a short recording.
(2) Play back the recorded portion and adjust ⊘RV10 (TRACKING) on the CSV board to minimize the PB RF level at TP12 on the ADE board.
(3) **Adjustment**



### 9-4-24. Carrier Detector Check (ADE Board)

Equipment: Oscilloscope
Mode: REC ⇒ PLAY
Switch setting: SW1(REC)/AMD = ON
SW2(A-CH REC)/AMD = ON
SW3(B-CH REC)/AMD = ON
Input signal: 1 kHz to AUDIO LINE INPUT
CH-1:Edge CN Pin-20/AMD = −15±1dBs(390 mVp-p)
CH-2:Edge CN Pin-22/AMD = −15±1dBs(390 mVp-p)

(1) Make a recording by changing the Hi-Fi Audio Select button to ON and OFF about 2 seconds interval, and rewind the tape.
(2) Put the machine in PLAY mode and check that the Hi-Fi recorded portion only be output from TP9 (or TP10).

### 9-4-25. Recording Current Adjustment (AMD Board)

Equipment: Oscilloscope
Mode: REC
Switch setting: SW1 (REC SW) = ON
SW2 (A-CH REC) = ON
SW3 (B-CH REC) = ON
Input signal: No signal

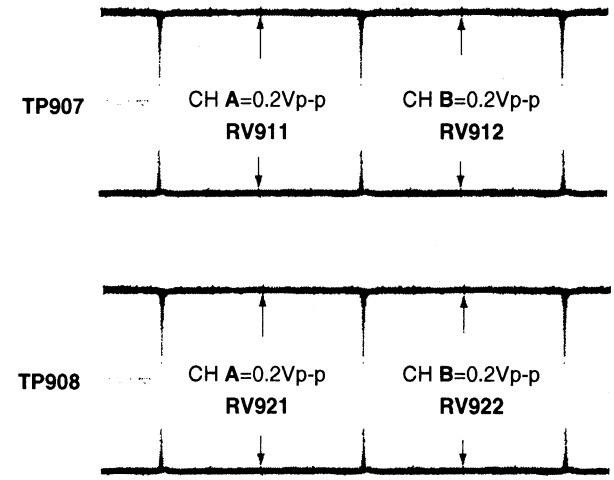
**Specifications**
CH-A/TP1: A =Attached data with replacement drum × 5 mVp-p / ⊘RV1
CH-B/TP2: A =Attached data with replacement drum × 5 mVp-p / ⊘RV2

***Note:*** *Voltage of "Recording Current × 5 [mVp-p]" can be observed at TP1 and TP2 on the AMD board.*

### 9-4-26. PB AFM Level Adjustment (ADE Board)

Equipment: Oscilloscope
EXT trig: TP906/ADE
Alignment tape
Mode: PLAY
Input signal: No signal

(1) Thread an alignment tape.
(2) Place the MMV into FF mode and press STOP button when color bars signal appears on the picture monitor.
(3) To set the TAPE LENGTH counter to "zero", press RESET switch on the function control panel.
(4) Place the MMV into FF mode and press STOP button when the black burst signal appears on the picture monitor.
(5) While playing back the black burst signal, turn TRACKING control for maximum output and then perform the following adjustment.
(6) **Adjustment**

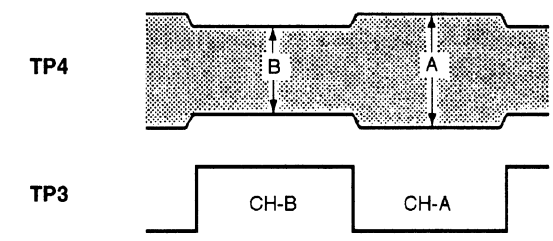



### 9-4-27.PB RF Output Balance Adjustment (APR Board)

Equipment: Oscilloscope
Mode: REC ⇒ PLAY
Switch setting: SW1(REC) = ON
SW2(A-CH REC) = ON
SW3(B-CH REC) = ON
Input signal: No signal

Make a short recording. While playing back the recorded portion, perform the following adjustment.

**Specifications:**
TP4: A = B / ⊘RV6



### 9-4-28.AFM Noise Canceler Adjustment (AMD Board)

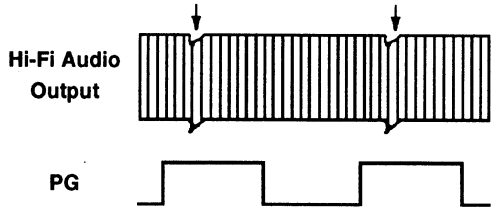
Switch setting: S901 = OFF

(1) **Preparation**

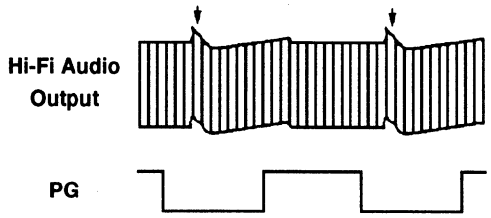
Before installing the AMD board, make a mother tape and make duplicating the tape.

- Record the –20 dB / 3 kHz signal on the Hi-Fi track.
- Do not change any initial setting until all the adjustments are completed.
- Play back the tape with regular VCR to check the noise at the arrow marked sections on the waveform.

**[ Example with AG-7800 ]**




**[ Example with BR-7700 ]**




Note that both Hi-Fi audio output and PG pulse phases have been inverted.

- If noises at the arrow marked sections are extraordinarily large, check them with another VCR.

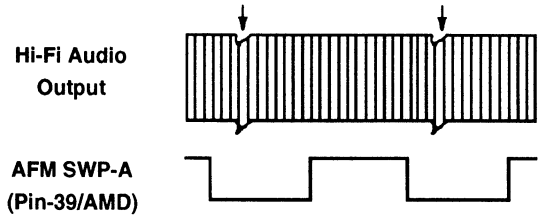
**NOTE: If noises at the arrow marked sections are less than 5% to an amplitude of audio signal, it is not necessary to perform the following adjustment.**

(2) **Noise Canceler Adjustment**

Switch setting: S901 = OFF
Monitor Select = Hi-Fi

Connect scope probes to AUDIO OUTPUT connector and edge connector pin-39 of the AMD board. Put the machine in REC mode and observe the Hi-Fi audio output signal and AFM switching pulse.

- Since pseudo pulses are imposed on the audio signal, adjust ⊘RV901, ⊘RV902 and ⊘RV903 so that they are the same level as that of the pseudo noises.

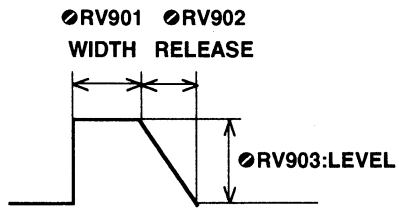



(3) **Noise Canceler Check**

Switch setting: S901 = OFF
Monitor Select = Hi-Fi

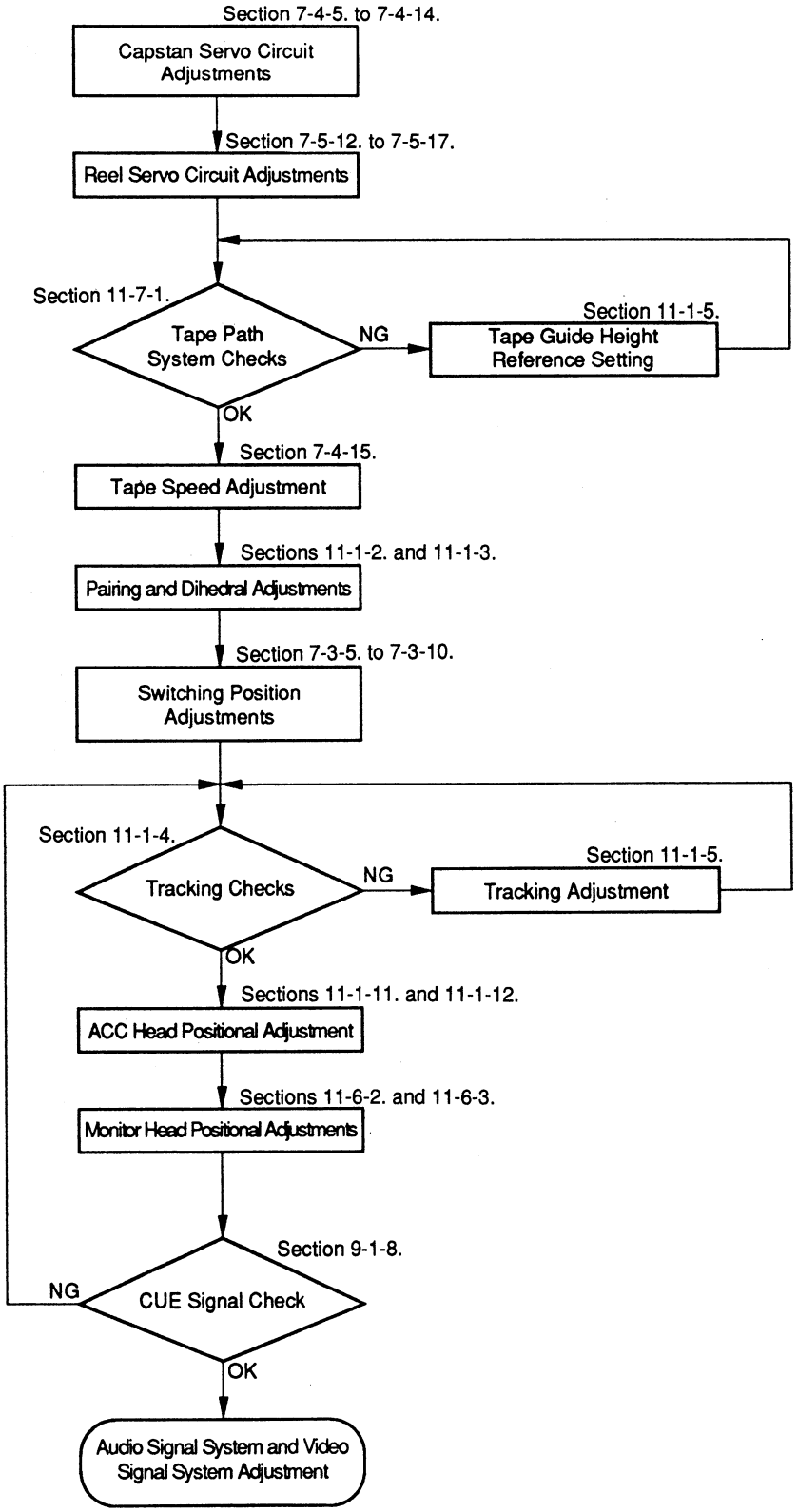
While applying the pseudo pulses, make a mother tape, make a duplication, and play it back.

- Check that the noises at the arrow marked portions (see step (2) above) become smaller (less than 5% of audio amplitude).
- If noises at the arrow marked sections are more than 5% to an amplitude of audio signal, readjust ⊘RV901, ⊘RV902 and ⊘RV903 to change the shape of waveform. After that, repeat from step (2).



# SECTION 10
# TAPE PATH SYSTEM ADJUSTMENT FLOWCHART

**Note**: Use the following flowchart when identify the malfunctioning parts.



# SECTION 11
# TAPE PATH SYSTEM ADJUSTMENTS AFTER PARTS REPLACEMENT

**Be sure to perform this section after replacing the parts according to section 4 "Main Parts Replacement".**

- When make adjustment, use the following tape and empty reel.
  Tape: V-1/400
  Empty Reel: RH-7SP

- As to tools, refer to section 3. As to alignment tapes, refer to sections 3 and 5.
- After adjustment, be sure to check the characteristics of the video and stationary audio systems.

## 11-1. Tape Path Adjustment after Replacing the Video Drum and Rotary Drum Assemblies

Before replancing the video drum and rotary drum assemblies, record the reading of the hour meter provided on the rear panel of this equipment to refer to it for their next replacement (Fig. 11-1).

Referring to the flowchart on page 11-2, make adjustments in the sequence specified.

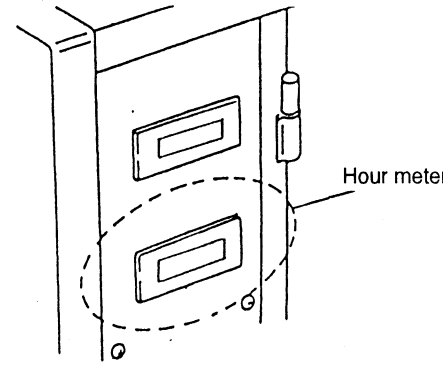
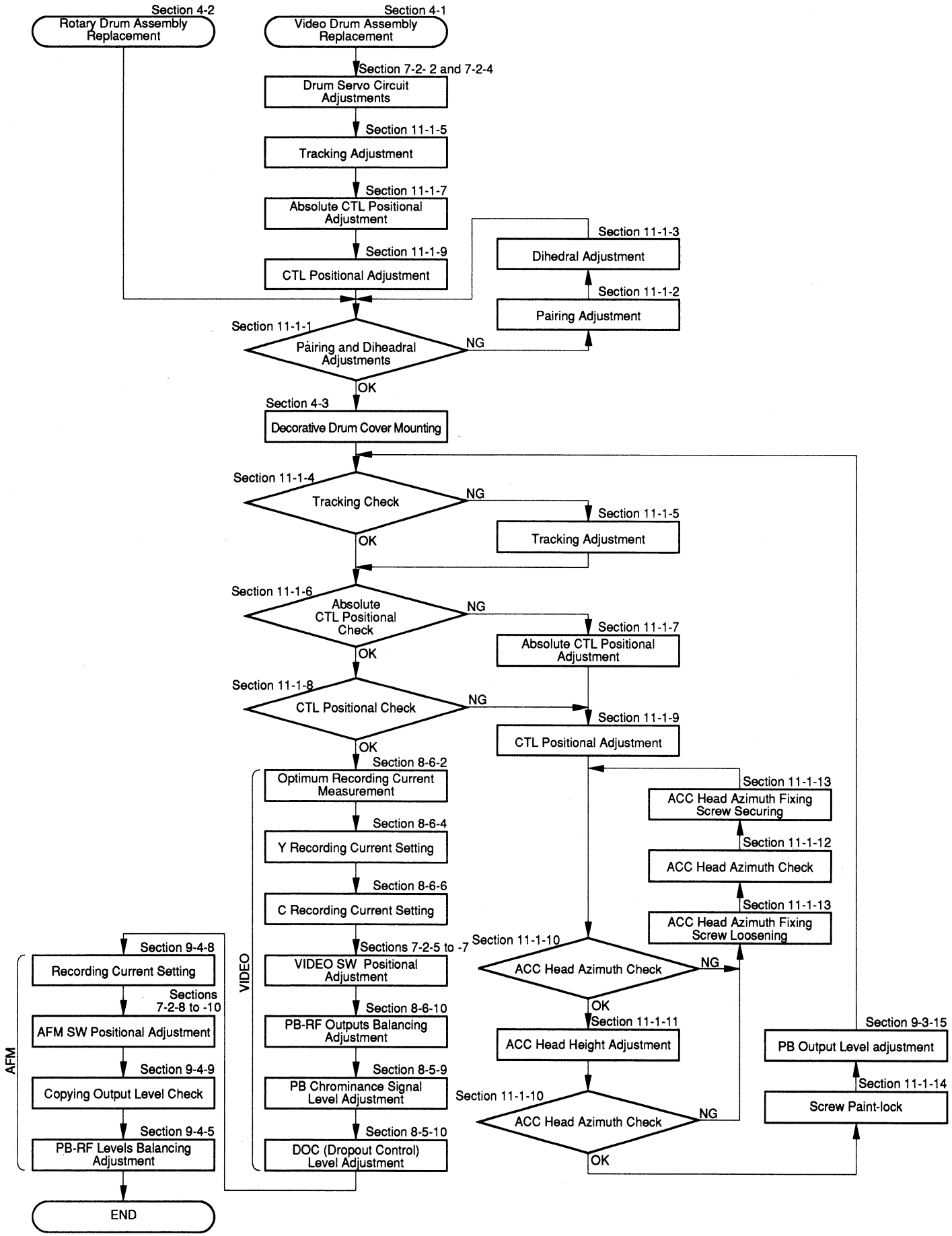



**Fig. 11-1. Hour Meter Location**


Section 4-2
Rotary Drum Assembly Replacement
Section 4-1
Video Drum Assembly Replacement
Section 7-2- 2 and 7-2-4
Drum Servo Circuit Adjustments
Section 11-1-5
Tracking Adjustment
Section 11-1-7
Absolute CTL Positional Adjustment
Section 11-1-9
CTL Positional Adjustment
Section 11-1-3
Dihedral Adjustment
Section 11-1-2
Pairing Adjustment
Section 11-1-1
Pairing and Diheadral Adjustments
NG
OK
Section 4-3
Decorative Drum Cover Mounting
Section 11-1-4
Tracking Check
NG
OK
Section 11-1-5
Tracking Adjustment
Section 11-1-6
Absolute CTL Positional Check
NG
OK
Section 11-1-7
Absolute CTL Positional Adjustment
Section 11-1-8
CTL Positional Check
NG
OK
Section 11-1-9
CTL Positional Adjustment
Section 8-6-2
Optimum Recording Current Measurement
Section 8-6-4
Y Recording Current Setting
Section 8-6-6
C Recording Current Setting
Sections 7-2-5 to -7
VIDEO SW Positional Adjustment
Section 8-6-10
PB-RF Outputs Balancing Adjustment
Section 8-5-9
PB Chrominance Signal Level Adjustment
Section 8-5-10
DOC (Dropout Control) Level Adjustment
VIDEO
Section 11-1-13
ACC Head Azimuth Fixing Screw Securing
Section 11-1-12
ACC Head Azimuth Check
Section 11-1-13
ACC Head Azimuth Fixing Screw Loosening
Section 11-1-10
ACC Head Azimuth Check
NG
OK
Section 11-1-11
ACC Head Height Adjustment
Section 11-1-10
ACC Head Azimuth Check
NG
OK
Section 9-3-15
PB Output Level adjustment
Section 11-1-14
Screw Paint-lock
Section 9-4-8
Recording Current Setting
Sections 7-2-8 to -10
AFM SW Positional Adjustment
Section 9-4-9
Copying Output Level Check
Section 9-4-5
PB-RF Levels Balancing Adjustment
AFM
END

### 11-1-1. Pairing and Dihedral Checking

a. Video Pairing Checking
Play back the pulse and bar signal portion of an alignment tape. While turning the tracking control (⊘ RV10) on the CSV board, observe the PB RF signal output from TP13 on the YDE board. Check so that RF peak levels of both channel A and channel B are equal.

b. AFM Pairing Checking
Play back the pulse and bar signal portion of an alignment tape. While turning the tracking control (⊘ RV10) on the CSV board, observe the PB RF signal output from TP12 on the YDE board. Check so that the peak levels of AFM A and VIDEO B are equal and the AFM B and VIDEO A peaks are equal.

c. Video Dihedral Checks
Play back the pulse and bar signal portion of an alignment tape, and set the tracking control (⊘ RV10) on the CSV board to maximum PB RF output from TP13 on the YDE board. Observe the playback picture on the monitor to check 2T pulses are not split as shown in Fig. 11-2.

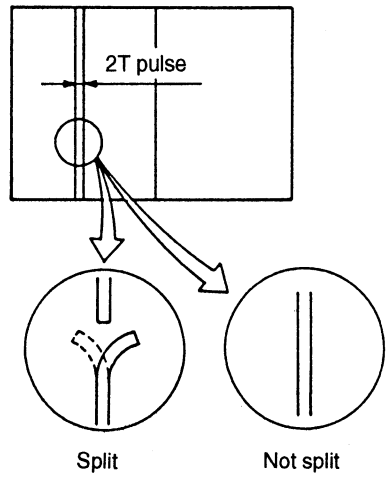



**Fig. 11-2. Dihedral Checks**

### 11-1-2. Pairing Adjustment [ MMV800/802 ]

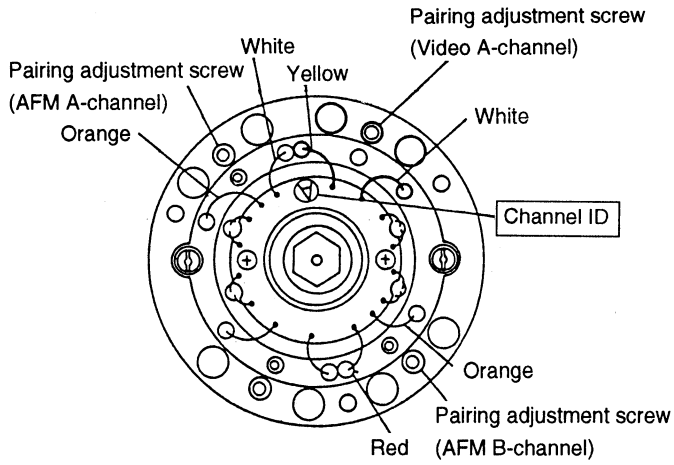



**Fig. 11-3 (1). Pairing Adjustment (MMV800/802)**

**[ MMV810 ]**

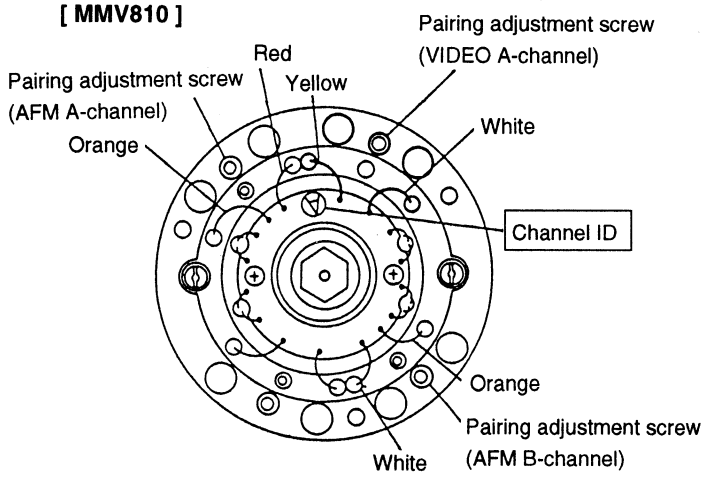



**Fig. 11-3 (2). Pairing Adjustment (MMV810)**

a. Video Pairing Adjustment
Play back the pulse and bar portion of an alignment tape, and while observing the PB-RF signal output from TP13 on the YDE board, slowly turn the pairing adjusting screw for video channel A (–azimuth) until the channel A and channel B RF peak levels to coincide with each other by turning the tracking control (⊘ RV10) on the CSV board.

| Head moves for 5μm by rotating the adjusting screw for 5 degrees. |
|---|

**Note:** Since the pairing adjusting screw has been coated with a screw locking compound, first remove it with a cotton swab moistened sparingly with MEK, before operation. Also, the drum should be moved after the applied MEK has thoroughly dried up.

b. AFM Pairing Adjustment

**[ MMV800/802 ]**

Play back the pulse and bar signal portion of an alignment tape, and while observing the PB-AFM signal output from TP12 on the ADE board and PB-RF signal output from TP13 on the YDE board, slowly turn the AFM head pairing adjusting screw until the AFM-A and VIDEO-B as well as AFM-B and VIDEO-A peak levels to coincide with each other by turning the tracking control (⊘ RV10) on the CSV board.

*Head moves for 5μm by rotating the adjusting screw for 5 degrees.*

**[ MMV810 ]**

Play back the pulse and bar signal portion of an alignment tape, and while observing the PB-AFM signal output from TP12 on the ADE board and PB-RF signal output from TP13 on the YDE board, slowly turn the AFM head pairing adjusting screw until the AFM-A and VIDEO-A as well as AFM-B and VIDEO-B peak levels to coincide with each other by turning the tracking control (⊘ RV10) on the CSV board.

*Head moves for 5μm by rotating the adjusting screw for 5 degrees.*

### 11-1-3. Dihedral Adjustment

1. While playing back the pulse and bar signal portion of an alignment tape, adjust so that the PB-RF signal output from TP13 on the YDE board for maximum level with Tracking control (⊘RV10) on the CSV board.
2. While observing the picture monitor, slowly turn the Tracking control (⊘RV10) on the CSV board to the right or left, and check that there is no split in 2T pulse.
3. If the split should appear on the picture monitor, screw the dihedral adjustment screw (VP-60) into the hole A in case when the Tracking control (⊘RV10) is rotating in the clockwise.

   If the split should appear on the picture monitor, screw the dihedral adjustment screw (VP-60) into the hole B in case when the Tracking control (⊘RV10) is rotating in the counterclockwise.

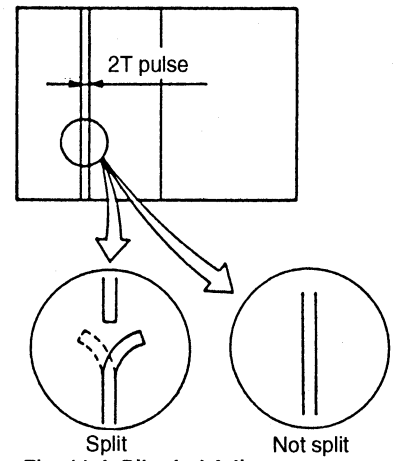



**Fig. 11-4. Dihedral Adjustment**

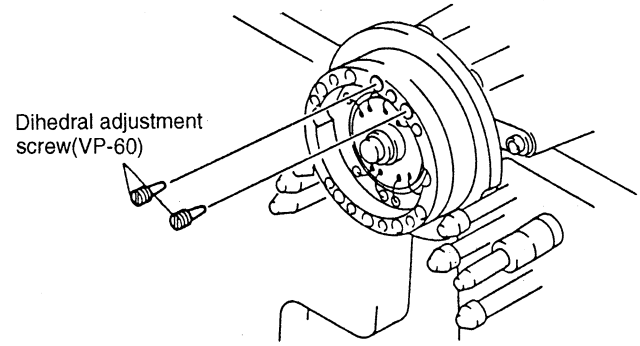



**Fig. 11-5. Dihedral Adjustment Screws (VP-60)**

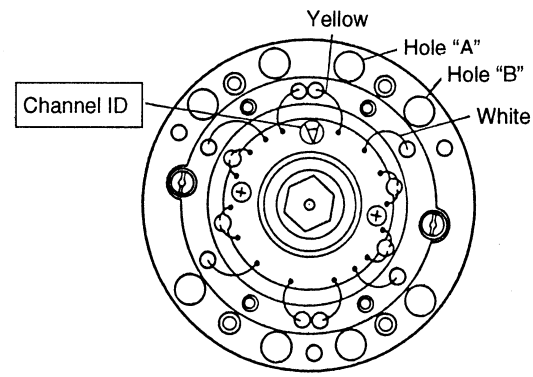



**Fig. 11-6. Position of Dihedral Adjusting Screws**

### 11-1-4. Tracking Checks

While playing back the 1 MHz Bch signal portion of an alignment tape, observe the PB RF signal output from TP13 on the YDE board, and turn the Tracking control (⊘ RV10) on the CSV board maximm clockwise and counterclockwise.
It an improper waveform is shown, proceed to the Tracking Adjustment.

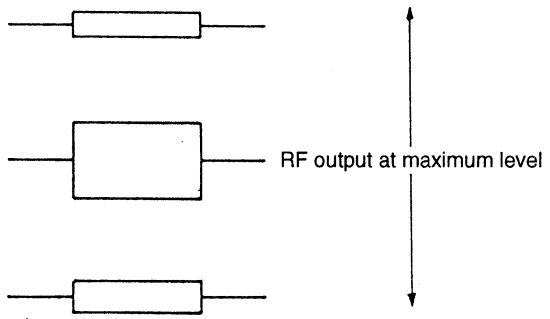



**Fig. 11-7. Tracking Check (Good)**

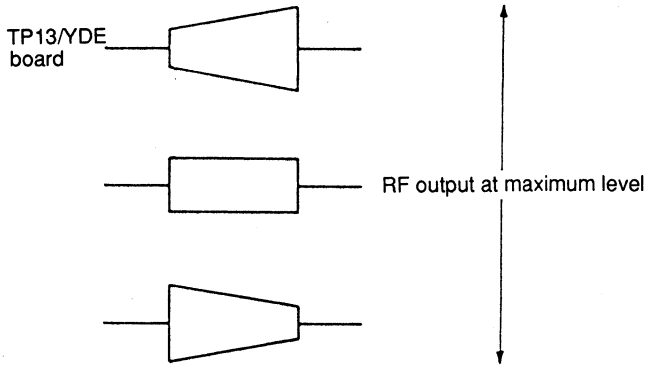



**Fig. 11-8. Tracking Check (No good)**

### 11-1-5. Tracking Adjustment

1. While playing back the 1 MHz Bch signal portion of an alignment tape and observing the PB-RF signal output from TP13 on the YDE board, perform the following tape path adjustment until obtaining a flat RF output.
2. While turning the Tracking control (⊘ RV10) on the CSV board maximum clockwise and counterclockwise, adjust so that the RF output fades as shown in Fig. 11-7.

**Tape Path Adjustment**
Since the tape path adjustment influences the picture quality and compatibility of the Mirror Mother VTR, be sure to perform the adjustment properly.

**Name of Main Components:**
- Guides K1, *K2, K3, R1 and R2 shown in Fig. 11-9 are called entrance guides, and guides K4, K5, K6, K7, R3, and R4, exit guides.
- When an alignment tape is played back, the left half of the RF output displayd on an oscilloscope is called "entrance side", and this portion of the waveform is chiefly influenced by the entrance side guides.
  The right half waveform is called the "exit side", and is chiefly influenced by the exit side guides.

**Note**: There is no K2 guide in MMV810/802.

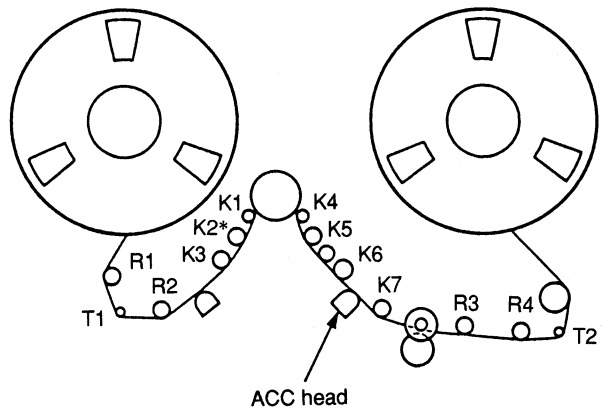



**Fig. 11-9. Location of Tape Guides**

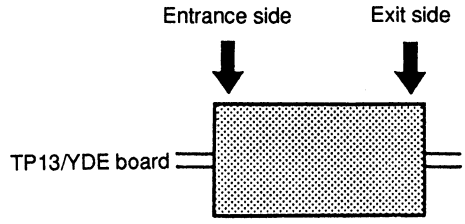



**Fig. 11-10. RF Output Waveform**

## 1. Preparation before adjustment

1. Clean the tape running surfaces (tape guides, drum, capstan, pinch roller, ACC head, video head, AFM head, etc.) with a cleaning piece lightly moistened with cleaning fluid. When the cleaning is completed, wipe them with dry cloth.
2. Connect oscilloscope probe to TP13 (PB RF) on the YDE board, and its external trigger to TP15 on the DSV board.
3. Play back the tracking portion of an alignment tape.
4. Set the tracking switch (SW7) on the CSV board to VAR position, and turn the tracking control (⊘RV10) so that the central portion of the RF output wavaform for maximum level.

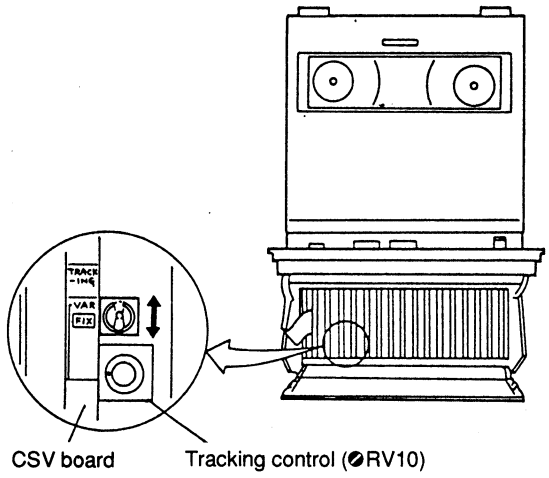



**Fig. 11-11. Location of CSV Board**

5. With V-Gain control of an oscilloscope, set the RF level for 6cm on the oscilloscope.

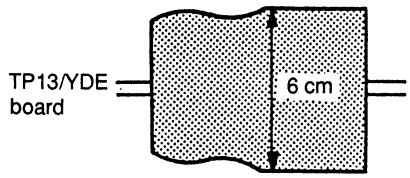



**Fig. 11-12**

6. Reset the tracking switch (SW7/CSV board) to FIX position. Check that the RF level on the oscilloscope is 5.6 cm or greater. If not, perform the following CTL position adjustment.

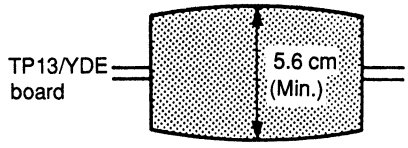



**Fig. 11-13. Tracking FIX Position**

7. Set the tracking switch again to VAR position. Turn the tracking control in the clockwise direction to make the RF center for 4 cm on the oscilloscope.
   Perform the following tape path adjustment in above conditions.

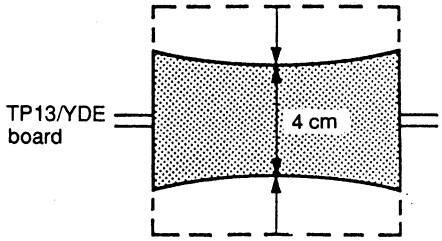



**Fig. 11-14. Reference RF for Tape Path Adj.**

**Fig. 11-15. Tracking Control Presetting**

## 2. Entrance Side Adjustment

1. While looking in a dental mirror, turn the K1 guide adjusting nut in the counterclockwise direction so that gap between the upper flange of K1 guide and the tape is 0.3 to 0.5 mm.

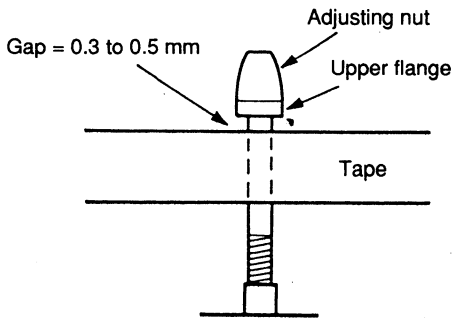



**Fig. 11-16. K1 Guide Adjustment**

2. *This step requires only when adjusting the MMV800 only.* While observing the RF waveform, slowly turn the K2 guide adjusting nut to lift or lower the guide and stops where the entrance side of RF is 4 to 4.5 cm on the oscilloscope as shown in Fig. 11-17.
   ***Note:***
   *Observe the RF waveform for 5 to 10 seconds per 30°.*

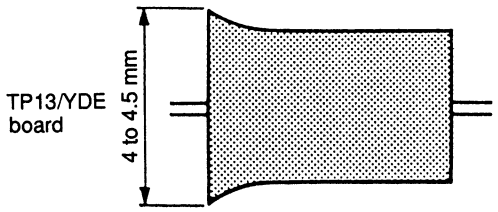



**Fig. 11-17. MMV800 only**

As the K2 guide moves upward, RF envelope is changed from ⓐ to ⓑ, and vice versa.

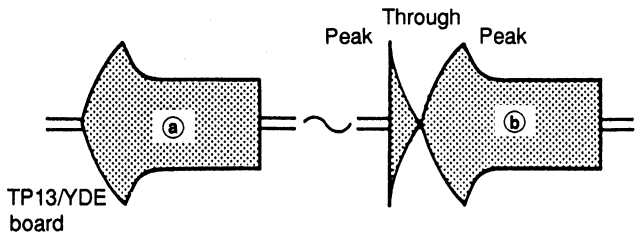



**Fig. 11-18**

3. Turn the K1 guide adjusting nut clockwise, and adjust so that the entrance side of RF waveform for 4 cm.

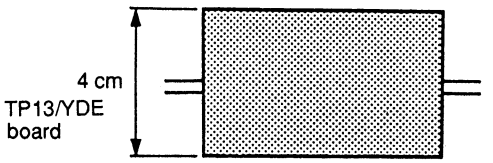



**Fig. 11-19. K1 Guide Adjustment**

**MMV810/802**:
Adjust the K3 guide if the above specification is not met.

4. Adjust R2 guide so that there is no gap at the upper side for MMV800 and at the lower side for MMV810/802. Also, adjust K3 and R1 guides so that there is no gap at the lower side.
5. Check the gap between the K1, K2, R1 and R2 guide flanges and the tape as well as the tape curls meet the specifications.
   Curls: K1, K2 = 0.1 mm or less
   K3, R1, R2 = no curls
   Gap: K1, K2, K3, R1, and R2 = no gap

**Note:** There is no K2 guide in MMV810/802

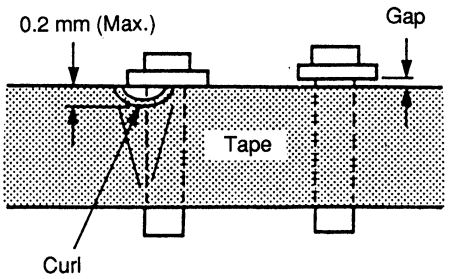



**Fig. 11-20.**

**Note: Tape Curl and Gap**
When excess pressure is applied by a guide flange, the tape is deformed to manifest a curl. When a flange fails to be in contact with the tape, a gap develops in between. Check the above by using a dental mirror.

### 3. Exit Side Adjustment

1. While looking in a dental mirror, turn the K4 guide adjusting nut in the counterclockwise direction so that the gap between the upper flange of K4 guide and the tape edge is 03 to 0.5 mm.

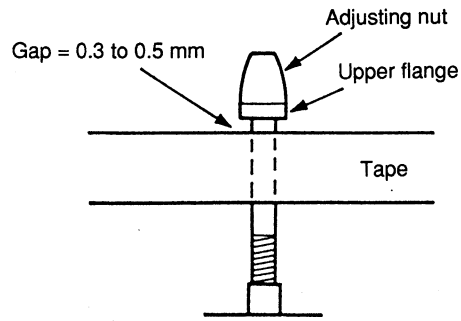



**Fig. 11-21. K4 Guide Adjustment**

2. Trun the K5 guide adjustment nut in the clockwise direction, and adjust the RF output level for 4 to 4.5 cm on the oscilloscope.

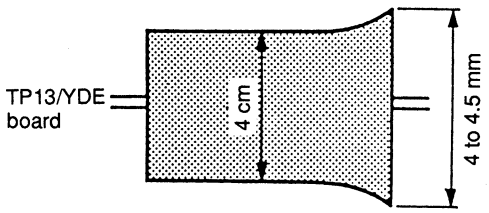



**Fig. 11-22. K5 Guide Adjustment**

3. Turn the K4 guide adjustment nut in the clockwise direction, and adjust the RF output level of exit side for 4 cm.

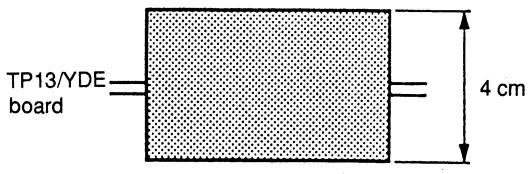



**Fig. 11-23**

4. Adjust the guides K6 and K7 for no gap at the lower side of the tape. Adjust the guides R3 and R4 for no gap at the upper side.
5. Check the gap between the K4, K5, K6, K7, R3 and R4 guide flanges and the tape as well as the tape curls meet the specifications.
   Gaps: K4, K5, K6, K7, R3 and R4 guides = no gap
   Curls: K4 and K5 guides = 1 mm or less
   K6, K7, R3 and R4 guides = no curl

### 4. Overall Adjustment

1. Confirm that the RF fluctuation in the entrance side is inside the specifications. Then set the tracking switch to VAR position, and check that the RF level can be changed by turning the tracking control (⊘RV10) on the CSV board in the maximum clockwise and counterclockwise direction.

   Specification: $\frac{A}{B} \leqq 0.8$

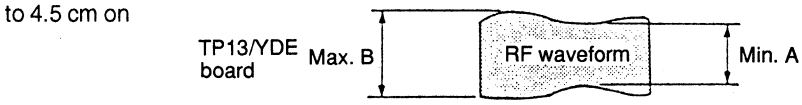



**Fig. 11-24**

2. While observing the RF waveform, turn the K1 guide adjusting nut in the clockwise direction and adjust to the point just before the entrance side of the RF waveform changes.
3. While observing the RF waveform, turn the K4 guide adjusting nut in the clockwise direction and adjust to the point just before the entrance side of the RF waveform changes.

Perform the following adjsutment if the height of guide has been extremely changed.

**Tape Guide Height Setting**

1. Lower Side Limiting Guides Adjustment
   Put the lower flange of guides R1, K3, K6 and K7 to portion A of guide height gauge (VP-02).

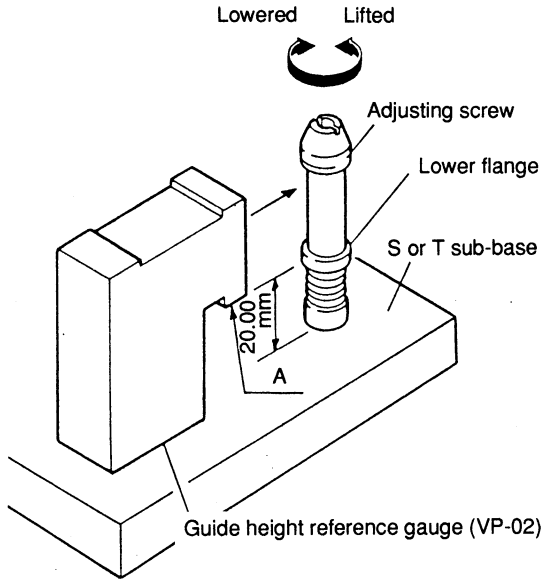



**Fig. 11-25. Setting of Lower Side Limiting Guide**

2. Upper Side Limiting Guides Adjustment
   Put the upper side of guides R2, K2, K1, K4, K5, R3 and R4 to portion B of guide height gauge (VP-02).

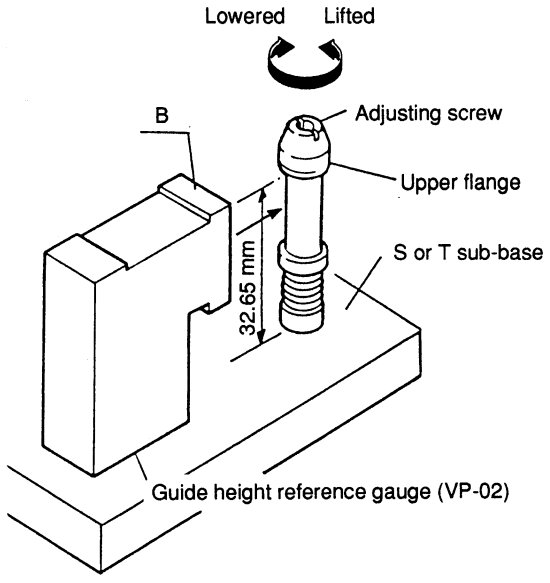



**Fig. 11-26. Setting of Upper Side Limiting Guide**

**11-1-6. Absolute CTL Position Check**

Play back the 1 MHz CTL HEAD ABS POSI signal portion of an alignment tape. While observing the PB RF signal output from TP13 on the YDE board and the PB CTL signal output from TP13 on the CSV board, check that the relationship between section A of the PB CTL signal and PB RF signal is met.

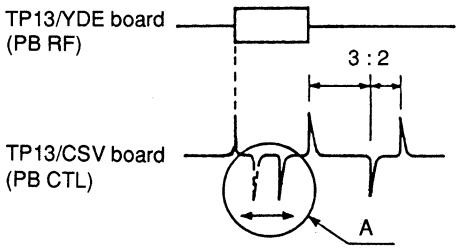



**Fig. 11-27. Absolute CTL Position**

### 11-1-7. Absolute CTL Position Adjustment

Play back the 1MHz CTL HEAD ABS POSI signal portion of an alignment tape, and while observing the PB RF output (TP13/YDE) and the PB CTL signal (TP13/CSV), move the ACC head position until the relationship between section A of PB CTL signal and PB CTL sigal is shown in Fig. 11-27.
During this adjustment, set the tracking switch SW7 on CSV board to FIX position.

**ACC Head Adjustment Procedure**

1. Loosen the two cap screws by about 45 degrees (with spring washers still effective).
2. Insert the tip of an eccentric screwdriver and turn it lightly to move the ACC head.
3. When moving the ACC head to the "a" direction, insert the eccentric screwdriver into the hole "d". When moving the ACC head to the "b" direction, insert the eccentric screwdriver into the hole "c".

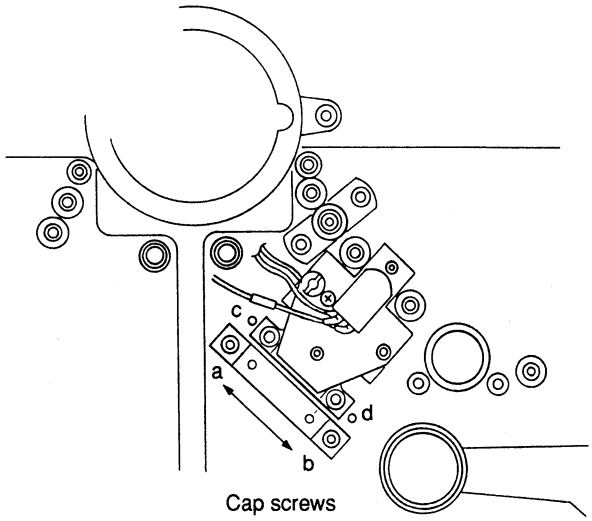



**Fig. 11-28. CTL Absolute Position Adjustment**

### 11-1-8. CTL Position Check

1. Play back the 1 MHz/channel-B signal portion of an alignment tape, and check the PB RF level (TP13/YDE). During this checking, set the tracking switch on the CSV board to FIX position.
2. While slowly turning the tracking control (⊘RV10) on the CSV board, read the maximum RF level.
3. By comparing the levels of steps 1 and 2, check as follows:
   step 1 level = step 2 level

### 11-1-9. CTL Position Adjustment

While playing back the 1 MHz/channel-B signal portion of an alignment tape, move the ACC head position according to section 11-1-7, and adjust so that the PB RF signal output from the YDE board when the tracking switch is set to "FIX" position, is equal to the maximum RF level with tracking control.

**Note:** After the completion of CTL position adjustment, perform section 11-1-6 again.

### 11-1-10. ACC Head Azimuth Check

**[ MMV800/802 ]**

Set MONI switch SW4 on the AUL/AUR boards to "R/P H" position. Connect channel-1 (X axis) and channel-2 (Y axis) of oscilloscope probes to TP8 on the AUL/AUR boards for observing the Lissajous waveform, and play back an alignment tape.

**[ MMV810 ]**

Since the ACC head of MMV810 is monoural type, check the ACC head azimuth in the following order.

1. Set MONI switch SW4 on the AUD board to "PB H." position.
2. After completing the monitor head adjustment, insert the tool board VP-106 into No. 17 slot of the card rack.
3. Connect oscilloscope probes to TP8 on the AUD board and TP10 on the tool board VP-106 for observing the Lissajous waveform. Set the unit in REC mode, and while playing back with monitor head, check the Lissajous waveform.

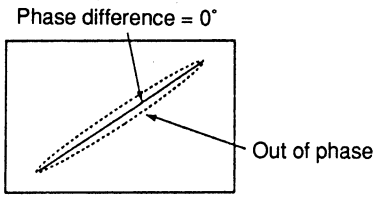



**Fig. 11-29. Lissajous Waveform**

### 11-1-11. ACC Head Height Adjustment

**[ MMV800/802 ]**

1. Adjust the zenith of an ACC head.
   **Specification**: 20 to 30 µm
2. Set MONI switch SW4 on the AUL and AUR boards to "R/P H." position. Play back an alignment tape and observe the waveforms at TP8 on the AUL and AUR boards. Slowly turn the height adjusting screw A and stops where the levels at TP8 for both AUL and AUR boards are maximum level. Then, adjust ⊘RV15 on the AUL and AUR boards for the same level.
3. Set MONI switch SW4 on the AUL and AUR boards to "R/P H." position. While playing back an alignment tape, observe the TP8 signals output from the AUL and AUR boards with level meters, and slowly turn the height adjusting screw A and stops where the levels at TP8 for both AUL and AUR boards are the same level.

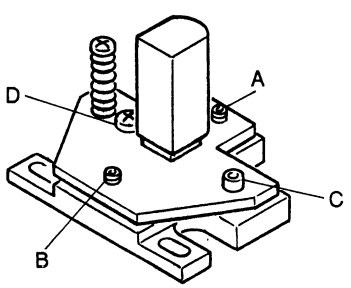



**Fig. 11-30. ACC Head Height Adjustment Screw "A"**

4. Azimuth Rough Adjustment
   With "X-Y" mode, connect channel-1 and channel-2 of oscilloscope probes to TP8 on the AUL and AUR boards. While playing back an alignment tape, adjust the screw C so that the Lissajous waveform becomes straight.

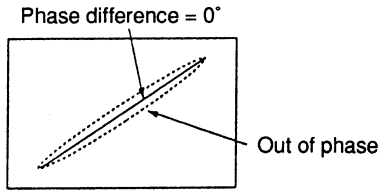



**Fig. 11-31. Lissajous Waveform**

5. Height Adjustment
   While playing back an alignment tape, slowly turn the screw A so that the levels at TP8 on the AUL and AUR boards are equal. Also, check to see that the peak positions.
   If peak positions have been changed by turning the screw A, turn the screw B at an angle of same degrees in the same direction.
   If the peak levels on the AUL and AUR boards cannot be adjusted equally, adjust them within –1 dB.

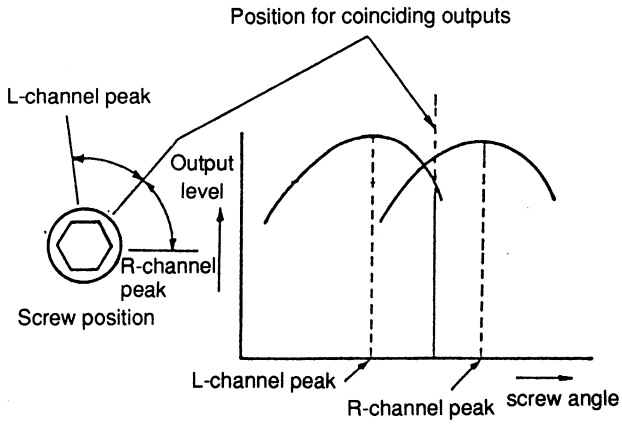
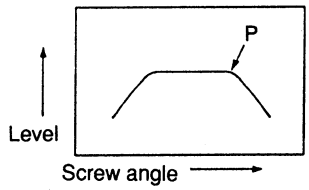



**Fig. 11-32. ACC Head Height Adjustment**

6. Zenith Adjustment
   Adjust zenith for 20 to 30 µm with the screw B.
   If zenith has been changed more than 2 to 3 µm, check the head height and levels again. If haed height and levels are out of specifications, repeat steps 5 and 6.

**[ MMV810 ]**

1. Set MONI switch SW4 on the AUD board to "R/P H" position. Play back an alignment tape and observe the level at TP8 on the AUD board.
2. Turn the head height adjusting screw A clockwise and counterclockwise to check the peak level.
3. When turning the screw A, the peak level varies as shown below. Slowly turn the screw A and stops where the peak level is just decreasing.




4. Azimuth pre-adjustment
   Set MONI switch SW4 on the AUD board to "PB H" position. With REC mode, adjust the azimuth adjusting screw C so that the Lissajous waveforms at TP8 on the AUD board and TP10 on the tool board VP-106 become almost straight line.
5. Height re-adjustment
   Play back an alignment tape and adjust the screw A so that the level at TP8 on the AUD board becomes point P as shown in step 3. If the peak level does not meet the specification, adjust the screw B in the same manner as screw A.
6. Azimuth adjustment
   Since the azimuth has been changed in the previous adjustments, check the azimuth and adjust the height adjusting screw B so that the inclination is 40 to 50 μm. If the difference is more than 2 to 3 μm, perform the height check (level check of the AUD board) and repeat steps 5 to 6 again.

### 11-1-12. ACC Head Azimuth Adjustment

**Note:** Confirm that the monitor head adjustment has been completed before this adjustment.

1. Insert the tool board VP-106 into slot No.12 of the card rack.
2. Set MONI switch SW4 on the AUL and AUR (MMV810 = AUD) boards to "PB H" position. Input the multiburst signal to AUDIO input.
   **[ MMV800/802 ]**
   With REC mode, play back the signal with monitor head. While observing TP8 outputs on the AUL and AUR boards with "X-Y" mode of an oscilloscope, adjust the screw C so that the Lissajous waveform is maximum as shown in Fig. 11-34 after tightening the ACC head fixing screw described in section 11-1-13. When turning the azimuth adjusting screw shown in Fig. 11-33, be sure to loosen the screw D shown in Fig. 11-30 first.
   After the adjustment, apply a screw locking compound.

   **[ MMV810 ]**
   With REC mode, play back the signal with monitor head. While observing TP8 output of the AUD board and TP10 output of the tool board VP-106 with "X-Y" mode of an oscilloscope, adjust the screw C so that the Lissajous waveform is maximum as shown in Fig. 11-34 after tightening the ACC head fixing screw described in section 11-1-13. When tightening the azimuth adjusting screw shown in Fig. 11-33, be sure to loosen the screw D shown in Fig. 11-30 first.
   After the adjustment, apply a screw locking compound.

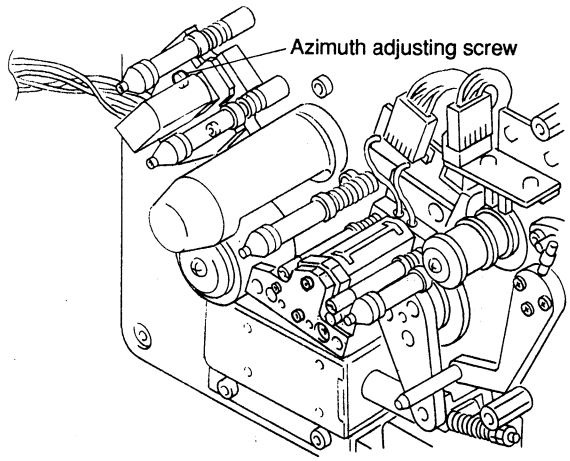



**Fig. 11-33. ACC Head Azimuth Adjusting Screw**

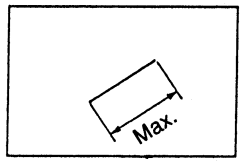
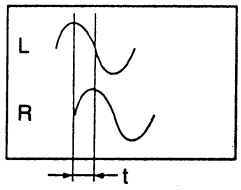


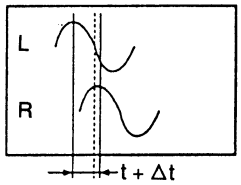

**Fig. 11-34. Lissajous Waveform**

### 11-1-13. Securing the ACC Head Azimuth Fixing Screw

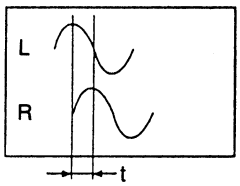
1. With REC mode, observe 3 KHz components that appear at TP8 on the AUL and AUR boards with oscilloscope,and measure the phase difference between channel-L and channel-R. And perform the following adjustment using screws C and D.



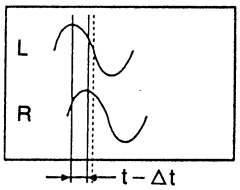

Tighten the screw D.



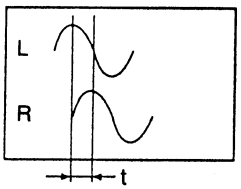

Loosen the screw D.




Turn the screw C a little to delay channel-R phase.




Tighten the screw D.




Where: t = ±22 µsec.

2. Phase Check
   After tightening the screw D with a tightening torque of 0.8 to 1.0 kg•f/cm, check the phase difference.
   **Specification**: 3 kHz Phase differense = within ±22 µsec

3. Height/Zenith Check
   While playing back an alignment tape, check that the level at TP8 on the AUL and AUR boards are equal.
   **Specification**: Zenith = 20 to 30 µm (MMV800/802)
   40 to 50 µm (MMV810)

### 11-1-14. Locking the Screws

Apply a screw locking compound to the following screws.

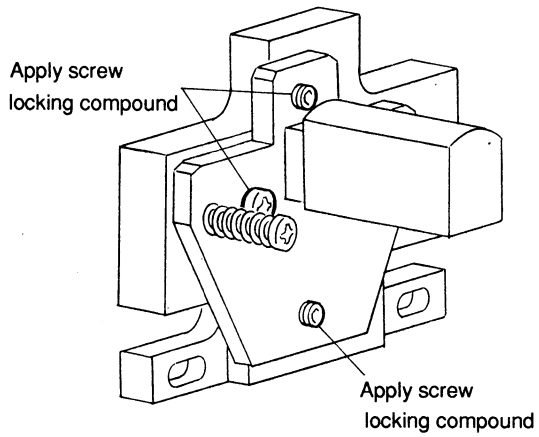



**Fig. 11-35**

## 11-2. Tape Path Adjustment after Replacing Reel Motor and Tension Requlating Arm

***Note:*** *Referring to the flowchart on page 11-16, make adjustments in the sequence specified.*

### 11-2-1. FWD Back Tension Check

Load a reel on the supply side reel table and pull the tape end out to just in front of the drum. Roll back the tape end into a loop and hook it over a tension scale. Put the unit in FWD mode and pull the tension scale straight up and check that the reading of the tension scale is within the specification.
**Specification**: 60 ± 3 g

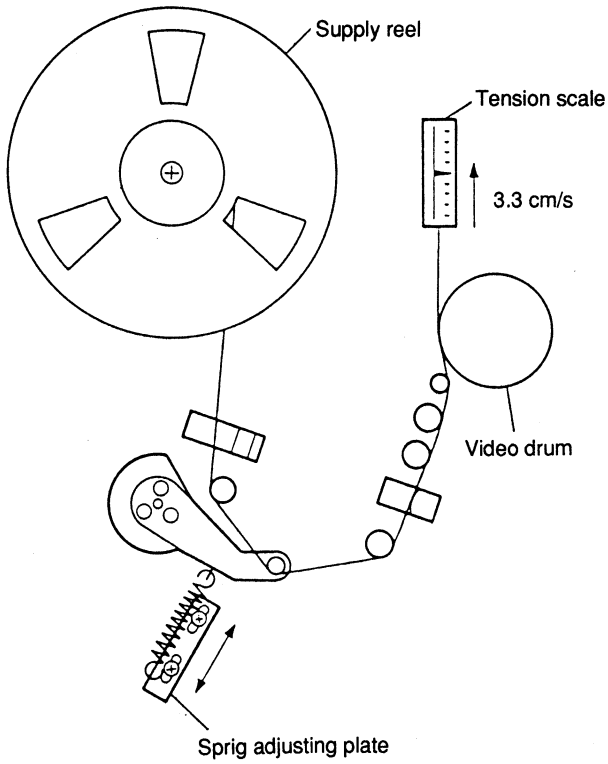



**Fig. 11-36. FWD Back Tension Check**

### 11-2-2. FWD Back Tension Adjustment

Measure the value of the tension scale reading referring to section 11-2-1, and adjust the position of the spring adjusting plate.
**Specification**: 60 ± 3 g

### 11-2-3. FWD Take-up Tension Check

Put the unit in FF mode and wind the tape about 3 mm thick on the take-up reel.
Insert the Tentelometer as shown in Fig. 11-37 and put the unit in PLAY (FWD) mode to run the tape. Measure the tape tension and check that the tension is within the specification.
**Specification**: Tape Tension SW/RSV = Low : 30 ± 5 g
Tape Tension SW/RSV = High : 70 ± 5 g

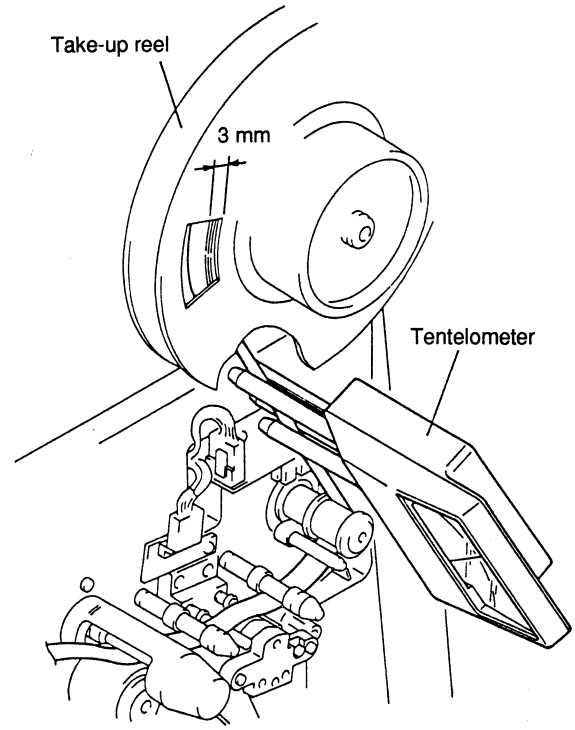



**Fig. 11-37. FWD Take-up Tape Tension Check**

### 11-2-4. FWD Take-up Tension Adjustment

Measure the tape tension referring to section 11-2-3, and adjust the tensions in accordance with the following procedures.

1. **Adjustment**: Tape Tension Switch (SW2/RSV) = LOW
   Adjust the tape tension by changing the position of the spring adjusting plate.
   **Specification**: 30 ± 5 g

2. **Adjustment**: Tape Tension Switch (SW2/RSV) = HIGH
   Adjust the tension with ⊘RV5 on the RSV board.
   **Specification**: 70 ± 5 g

### 11-2-5. FF Back Tension Check

Put the unit in FF mode and wind the tape about 3 mm thick on the supply reel.
Insert the Tentelometer as shown in Fig. 11-38 and put the unit in FF mode again to run the tape. Measure the tepe tension and check that the tension is within the specification.
**Specification**: FF back tension = 10 ± 3 g

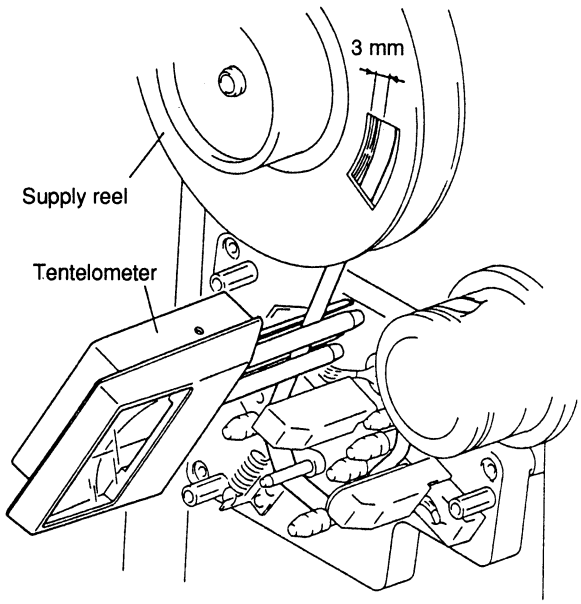



**Fig. 11-38. FF Back Tension Check**

### 11-2-6. FF Back Tension Adjustment

Measure the tape tension referring to section 11-2-5 and adjust the tension with ⊘RV108 on the RSV board.
**Specification**: FF back tension = 10 ± 3 g

### 11-2-7. REW Back Tension Check

Put the unit in FF mode and wind the tape about 3 mm thick on the take-up reel.
Insert the Tentelometer as shown in Fig. 11-39 and put the unit in REW mode to run the tape. Measure the tepe tension and check that the tension is within the specification.
**Specification**: FF back tension = 8 ± 3 g

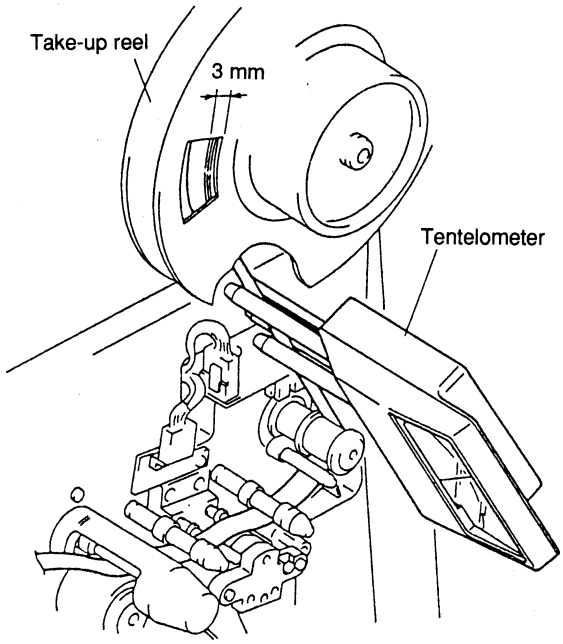
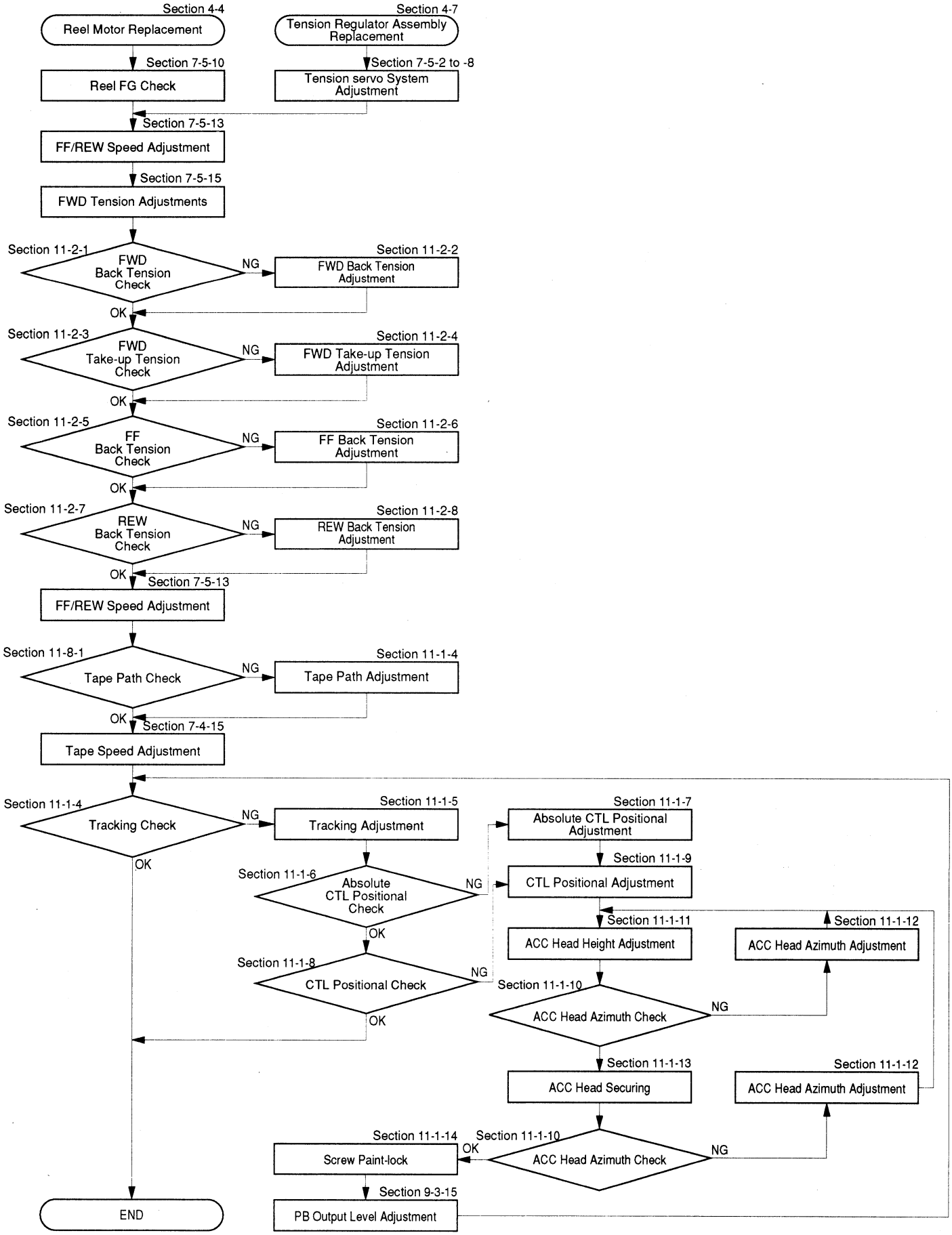



**Fig. 11-39 REW Back Tension Measurement**

### 11-2-8. REW Back Tension Adjustment

Measure the tape tension referring to section 11-2-7, and adjust the tension within ⊘RV8 on the RSV board.
**Specification**: REW back tension = 8 ± 3 g


Section 4-4
Reel Motor Replacement
Section 4-7
Tension Regulator Assembly Replacement
Section 7-5-10
Reel FG Check
Section 7-5-2 to -8
Tension servo System Adjustment
Section 7-5-13
FF/REW Speed Adjustment
Section 7-5-15
FWD Tension Adjustments
Section 11-2-1
FWD Back Tension Check
NG
Section 11-2-2
FWD Back Tension Adjustment
OK
Section 11-2-3
FWD Take-up Tension Check
NG
Section 11-2-4
FWD Take-up Tension Adjustment
OK
Section 11-2-5
FF Back Tension Check
NG
Section 11-2-6
FF Back Tension Adjustment
OK
Section 11-2-7
REW Back Tension Check
NG
Section 11-2-8
REW Back Tension Adjustment
OK
Section 7-5-13
FF/REW Speed Adjustment
Section 11-8-1
Tape Path Check
NG
Section 11-1-4
Tape Path Adjustment
OK
Section 7-4-15
Tape Speed Adjustment
Section 11-1-4
Tracking Check
NG
Section 11-1-5
Tracking Adjustment
OK
Section 11-1-6
Absolute CTL Positional Check
NG
OK
Section 11-1-8
CTL Positional Check
NG
OK
Section 11-1-7
Absolute CTL Positional Adjustment
Section 11-1-9
CTL Positional Adjustment
Section 11-1-11
ACC Head Height Adjustment
Section 11-1-12
ACC Head Azimuth Adjustment
Section 11-1-10
ACC Head Azimuth Check
NG
Section 11-1-13
ACC Head Securing
Section 11-1-12
ACC Head Azimuth Adjustment
Section 11-1-14
Screw Paint-lock
OK
Section 11-1-10
ACC Head Azimuth Check
NG
Section 9-3-15
PB Output Level Adjustment
END

## 11-3. Tape Path Adjustment after Replacing Capstan Motor

*Perform adjustment referring to the flowchart on page 11-18.*

### 11-3-1. Pinch Pressure Check

1. Block the sensor on the supply side sub-base with an opaque tape, and restrain the movement of the supply tension arm and take-up tension arm with rubber bands.
2. Put the unit in FWD mode to engage the pinch roller, and measure the pinch pressure with tension scale.
   When measuring the pinch pressure, pull the tension scale slowly until the pinch roller stops rotating, and read the scale indication.
   **Specification**: 40 ± 4 kg

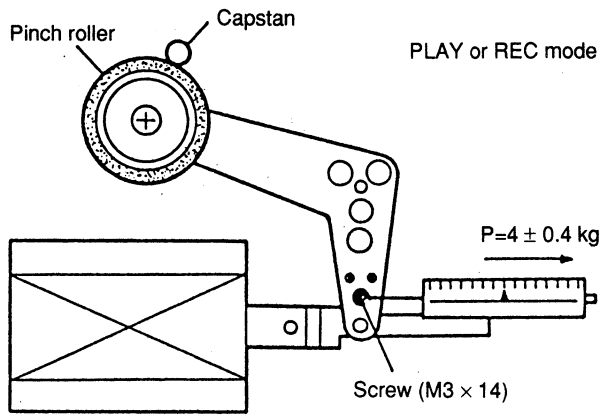
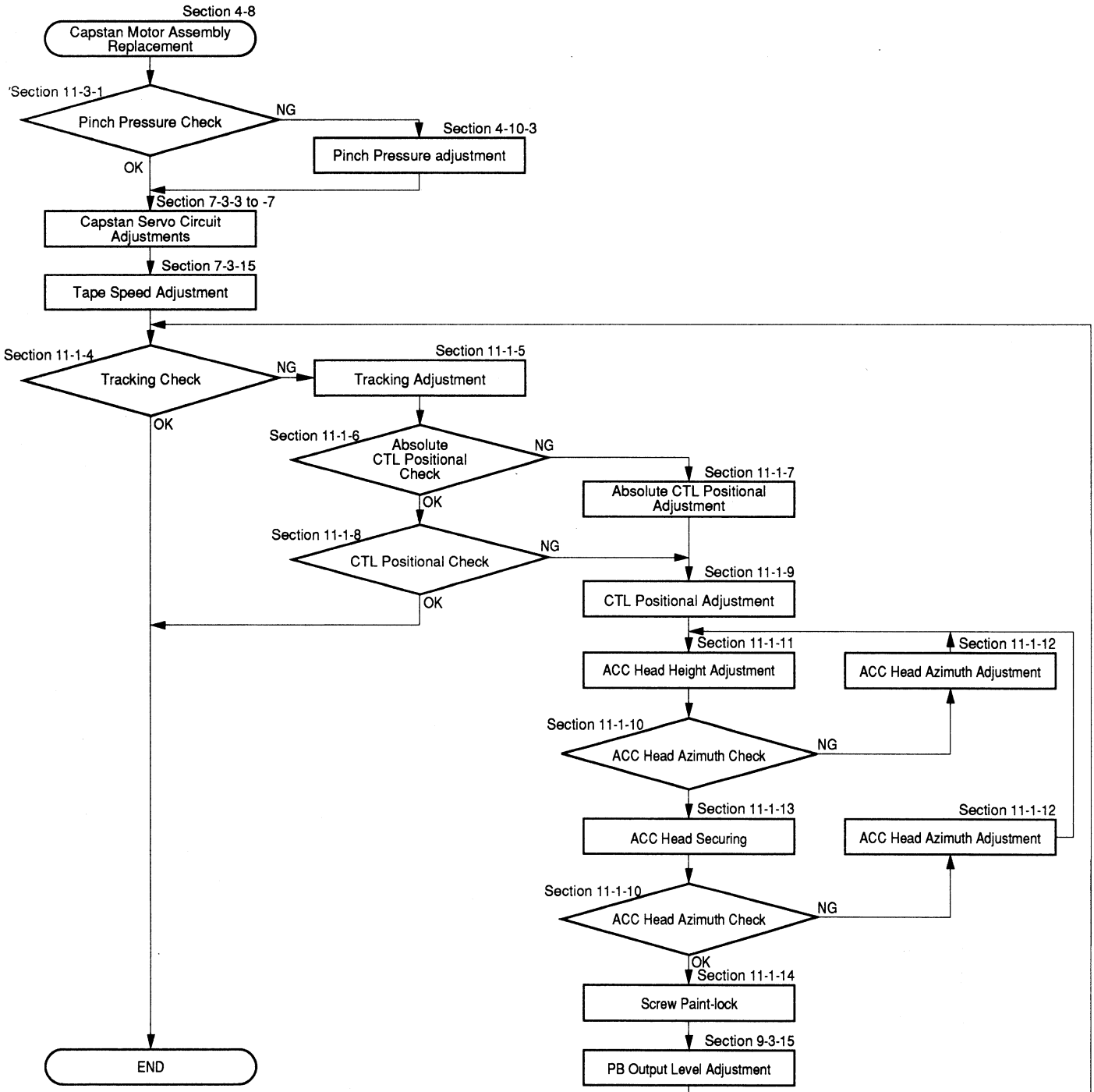
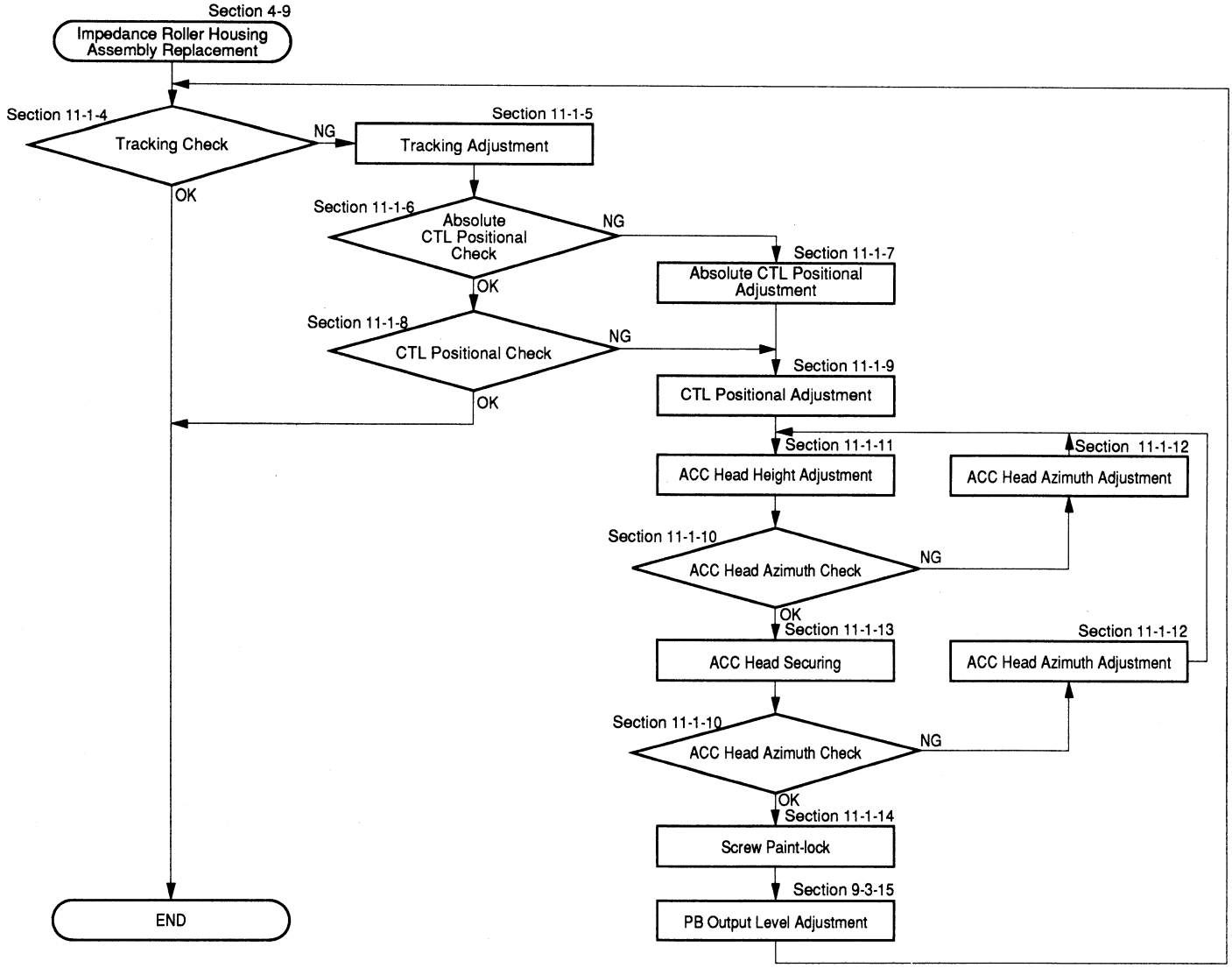


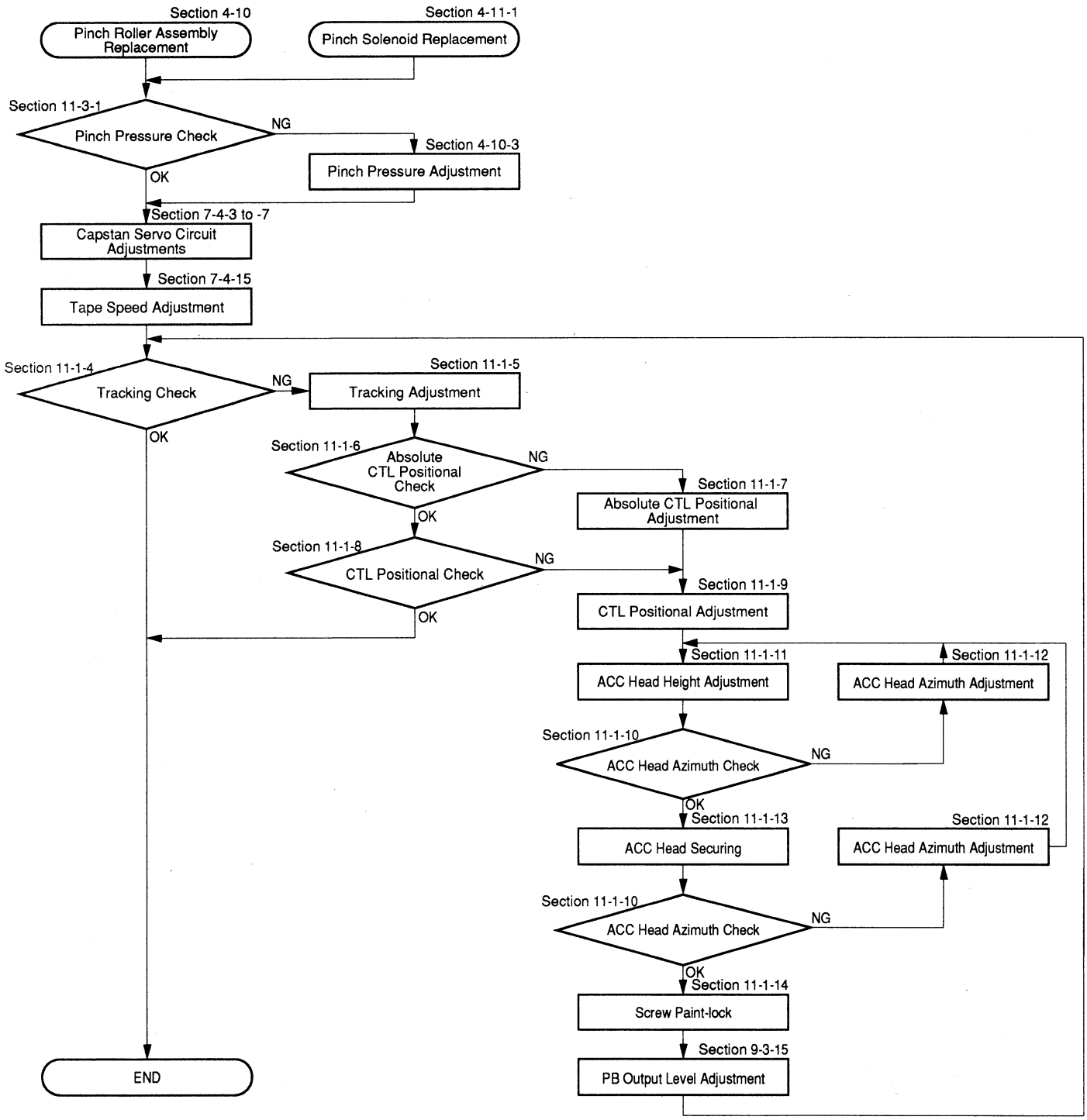

**Fig. 11-40. Pinch Pressure Check**


Section 4-8
Capstan Motor Assembly Replacement
Section 11-3-1
Pinch Pressure Check
NG
Section 4-10-3
Pinch Pressure adjustment
OK
Section 7-3-3 to -7
Capstan Servo Circuit Adjustments
Section 7-3-15
Tape Speed Adjustment
Section 11-1-4
Tracking Check
NG
Section 11-1-5
Tracking Adjustment
OK
Section 11-1-6
Absolute CTL Positional Check
NG
Section 11-1-7
Absolute CTL Positional Adjustment
OK
Section 11-1-8
CTL Positional Check
NG
Section 11-1-9
CTL Positional Adjustment
OK
Section 11-1-11
ACC Head Height Adjustment
Section 11-1-12
ACC Head Azimuth Adjustment
Section 11-1-10
ACC Head Azimuth Check
NG
Section 11-1-13
ACC Head Securing
Section 11-1-12
ACC Head Azimuth Adjustment
Section 11-1-10
ACC Head Azimuth Check
NG
OK
Section 11-1-14
Screw Paint-lock
Section 9-3-15
PB Output Level Adjustment
END

## 11-4. Tape Path Adjustment after Impedance Roller Housing Replacement



## 11-5. Tape Path Adjustment after Pinch Roller and Pinch Solenoid Replacement



## 11-6. Tape Path Adjustment after ACC Head Replacement

*Perform adjustment referring to the flowchart on page 11-23.*

### 11-6-1. Monitor Head Azimuth Check

Set MONI switch SW2 on the AUL and AUR boards (AUD board for MMV810) to "PB H" position.
Connect oscilloscope probes as follows, and set the oscilloscope to "X-Y" mode. Play back an alignment tape and check the Lissajous waveform.
[**MMV800/802**]: TP8 on AUL and AUR boards
[**MMV810**]: TP8 on AUD board and TP10 on VP-106

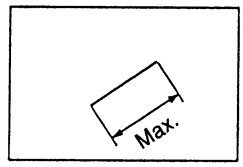



**Fig. 11-41. Lissajous Waveform**

### 11-6-2. Monitor Head Height Adjustment

1. Set MONI switch SW2 on the AUL and AUR boards (AUD board for MMV810) to "PB H" position.
2. Play back an alignment tape and connect an oscilloscope probes as follows:
   [**MMV800/802**]: TP8/AUL and AUR
   [**MMV810**]: TP8/AUD and TP10 on tool board VP-106

   Adjust the height adjusting screws, and maximize the levels at TP8 on the AUL and ALR boards for MMV800/802 and TP8 (AUD board) and TP10 (tool board VP-106) for MMV810.
   Then adjust ⊘RV11 so that the levels at TP8 and TP10 are equal.
3. Play back an alignment tape, and while observing the signal output from TP10 on the AUL/AUR boards for MMV800/802 or TP10 on the AUD board for MMV810 with level meters, confirm the point where the output levels match by turning the height adjusting screw A.

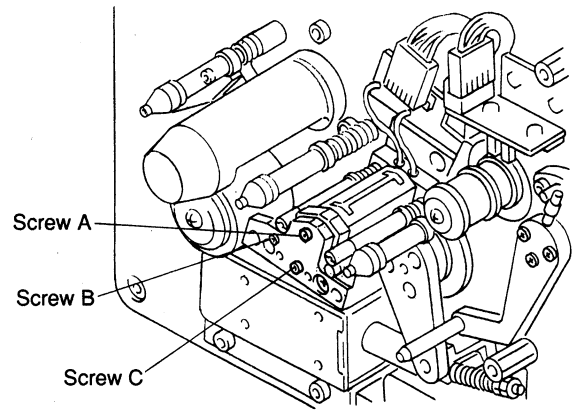



**Fig. 11-42. Monitor Head Height Adjustment**

3. If the channel-L and channel-R peak levels are not equal, lower the levels within 1dB from the peak levels with head height screw until both channels coincide with each other. After adjustment, apply a screw locking compound.

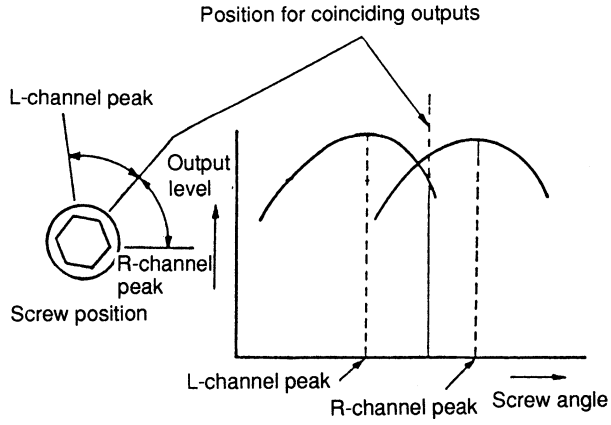



**Fig. 11-43. Monitor Head Height Adjustment**

### 11-6-3. Monitor Head Azimuth Adjustment

1. Set MONI switch SW2 on the AUL and AUR boards (AUD board for MMV810) to "PB H" position.
2. Connect oscilloscope probes to the following points.
   [**MMV800/802**]: TP10/AUL and AUR boards
   [**MMV810**]: TP10/AUD board and TP10 on VP-106
3. Set the oscilloscope to "X-Y" mode.
4. While playing back an alignment tape, turn the azimuth adjusting screw and adjust the Lissajous waveform as shown in Fig. 11-44.

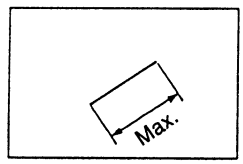



**Fig. 11-44(a).**

5. Connect oscilloscope probes to the following points.
   [**MMV800/802**]: TP8/AUL and AUR boards
   [**MMV810**]: TP8/AUD board and TP10 on VP-106
6. While playing back an alignment tape with monitor head, fine adjust the time difference between L and R channels for ±33 μsec or less.

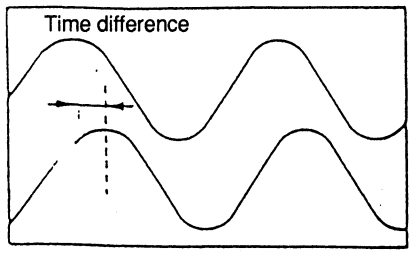



**Fig. 11-44(b).**

## *ADDITIONAL INFORMATION*

**Monitor Head Azimuth Adjustment**

This adjustment should be performed only when the monitor head azimutu has been extremely deviating from the appropriate angle with misadjustment of the monitor head height, and it affects the operation of tape path system.
Before performing the monitor head zenith adjustment, refer to section 11-6-2 and roughly adjust the monitor head height.

1. Place a perpendicular measuring tool (VP-21) on a height adjustment base (VP-25), and after its two feelers have been pressed against a rectangular ruler, set the needle of dial gauge to "0". At this point, memorize the position of the sub-needle.

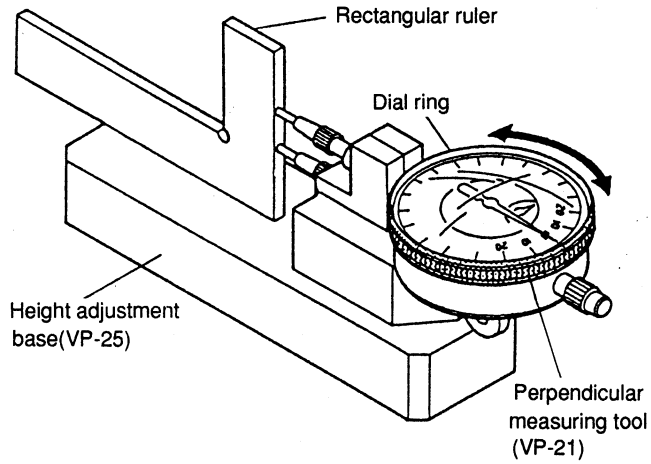



**Fig. 11-45. Perpendicular Measuring Tool (VP-21) Calibration**

2. Insert the 1/2" video tape between the feelers and monitor head. Press the monitor head against the feelers, read the dial gauge indication, and adjust zenith with screw D.
   **Specification**: 70 to 100μm

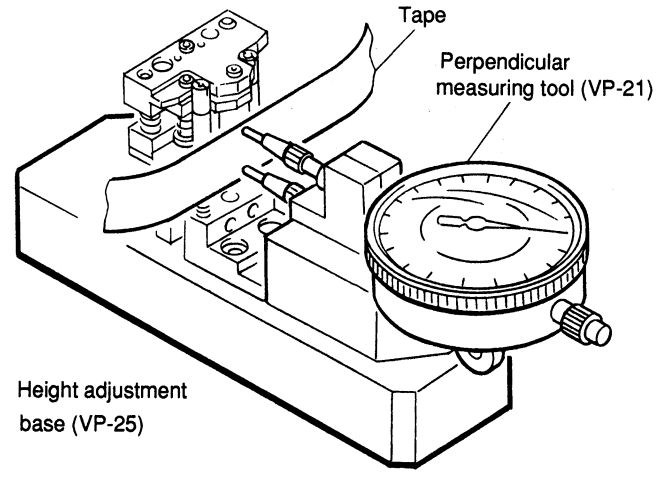



**Fig. 11-46. Monitor Head Zenith Adjustment**

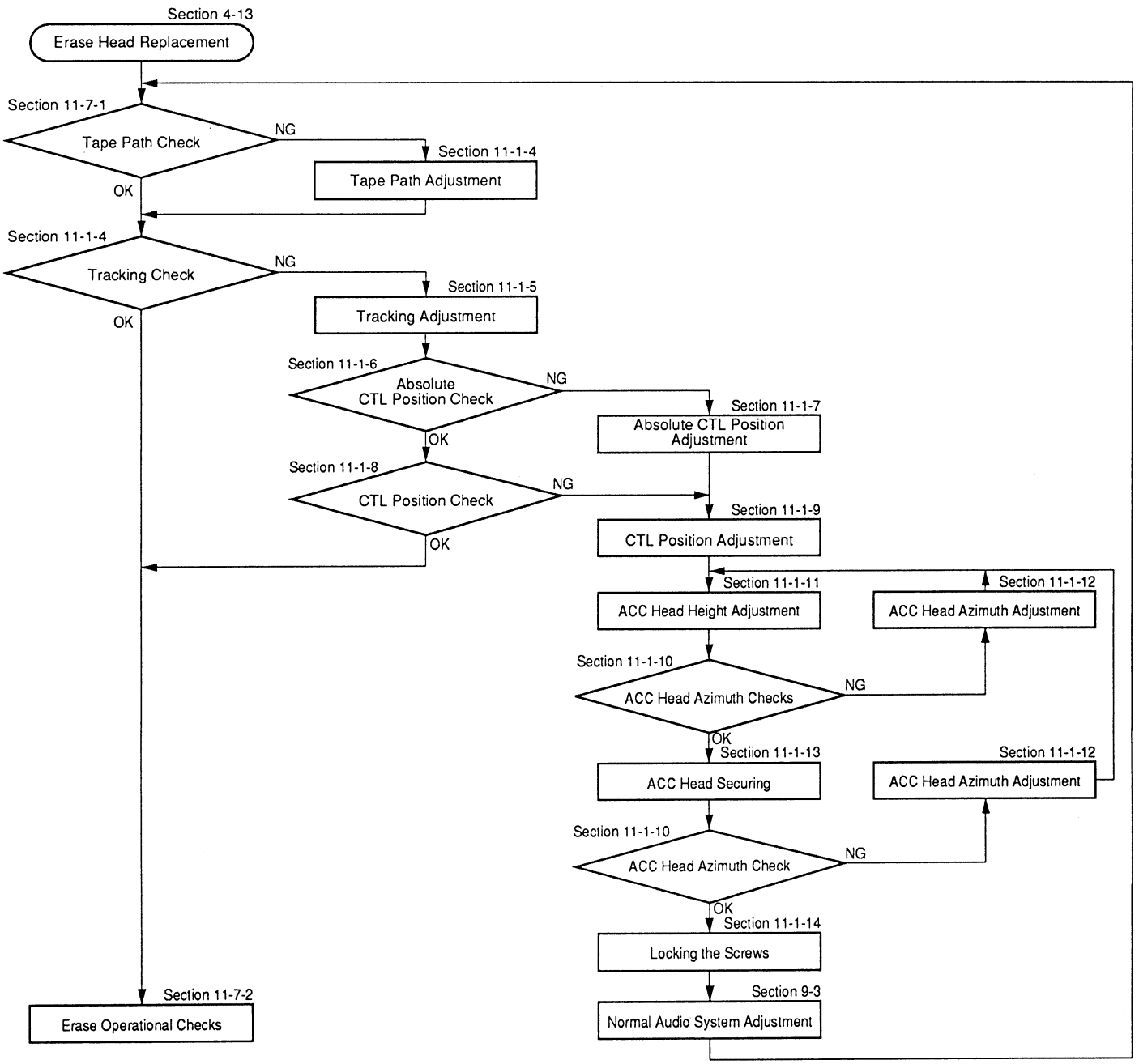
## 11-7. Tape Path Adjustment after Replacing Erase Head

### 11-7-1. Tape Path Check

1. Check to see that the tape runs along the middle of reels.
2. As described in section 11-1-4, check that the K1, K2, K4, K5, R2, R3 and R4 are limiting the upper side of tape, and K3, K6, K7 and R1 are limiting the lower side of tape.
   In addition, check that there are no tape curl and twist at the guides.
   **Note:** There is no K2 guide in MMV810/802.

### 11-7-2. Erase Operational Check

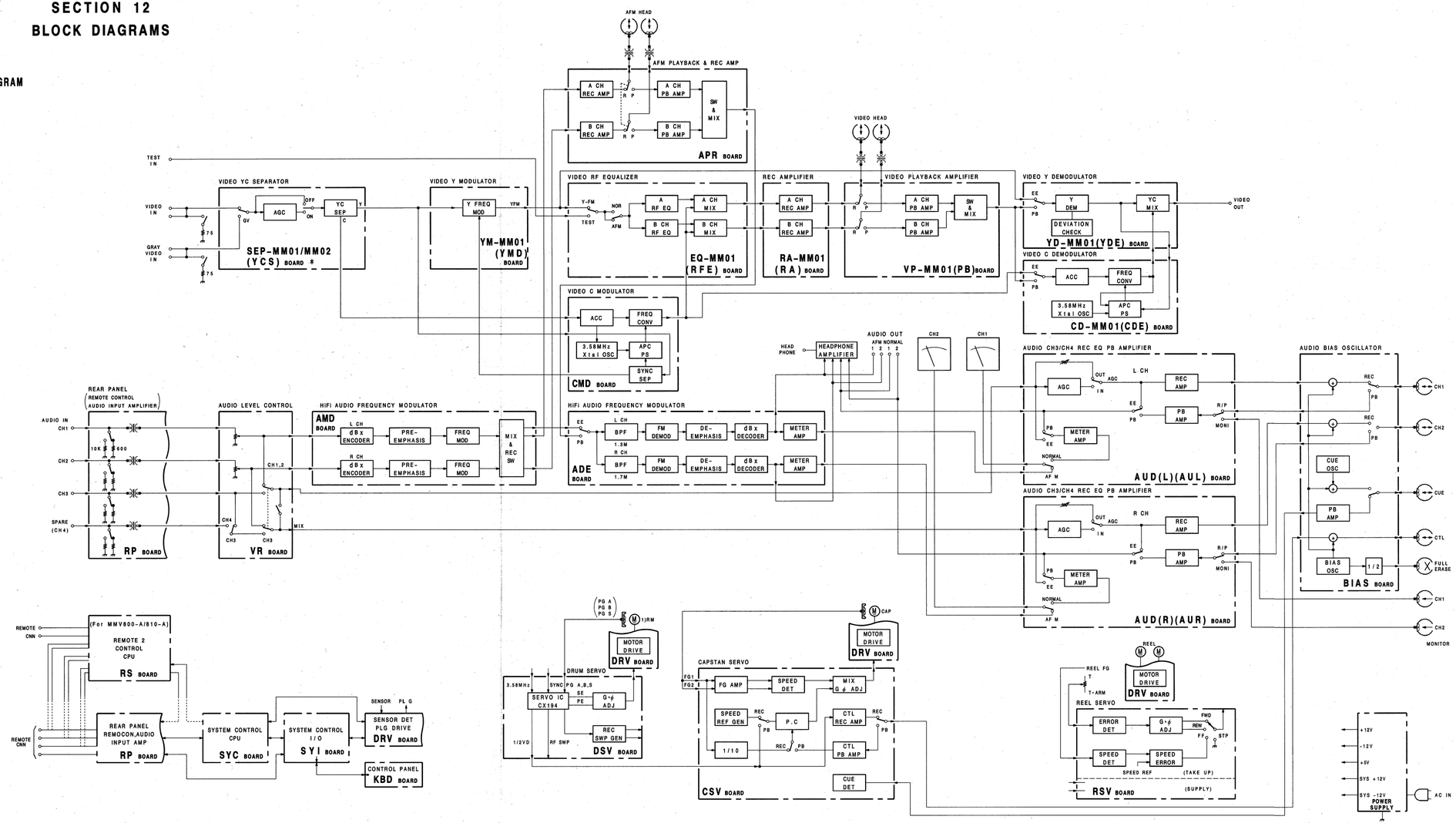
1. Make recording of the 1kHz reference signal about 4 m using a demagnetized tape.
2. Rewind 2 m of the recorded tape. Then, make recording with no signal input over the remaining 2 m.
3. Rewind the tape completely. Play back the recorded portion and measure the level difference between 1 kHz and no signal portions with spectrum analyzer.
   **Specification**: 56 dB or greater



FOR MMV800/810 OVERALL

# SECTION 12
# BLOCK DIAGRAMS

## OVERALL BLOCK DIAGRAM FOR MMV800/810




* NOTE
SEP-MM01(YCS) BOARD
MMV800(J1) :S/N 00001,00002
MMV800(U7) :S/N U00001-U00007
MMV810(U7) :S/N U00001-U00003
SEP-MM02(YCS) BOARD
MMV800(J1) :S/N 00003 and up
MMV800(U7) :S/N U00008 and up
MMV810(U7) :S/N U00004 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1) :S/N 00001 and up
MMV800-A(U7)/MMV810(U7) :S/N U00001 and up

MMV800/810
**OVERALL BLOCK DIAGRAM**



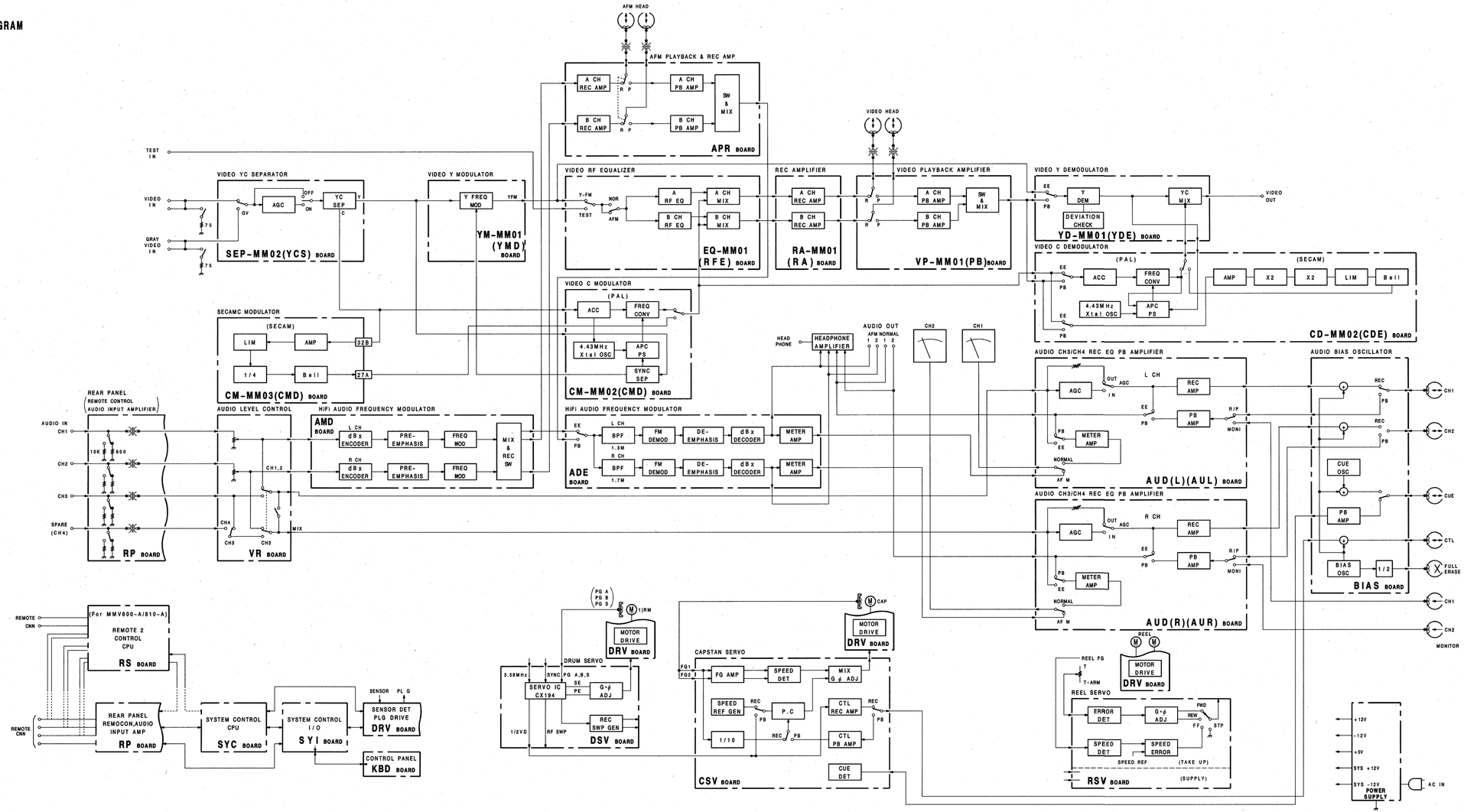
12-1

12-1

FOR MMV802 OVERALL

OVERALL FOR MMV802

# OVERALL BLOCK DIAGRAM FOR MMV802






12-2

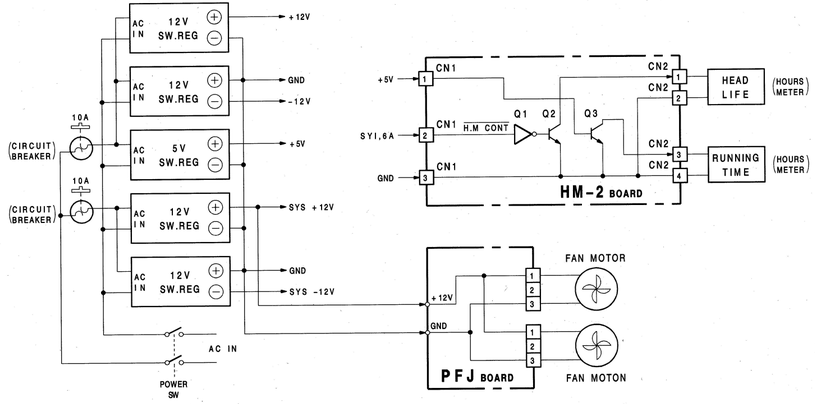
12-2

MMV802
OVERALL BLOCK DIAGRAM

POWER SUPPLY SYSTEM

## POWER SUPPLY SYSTEM BLOCK DIAGRAM

HM-2,PFJ BOARDS






12-3

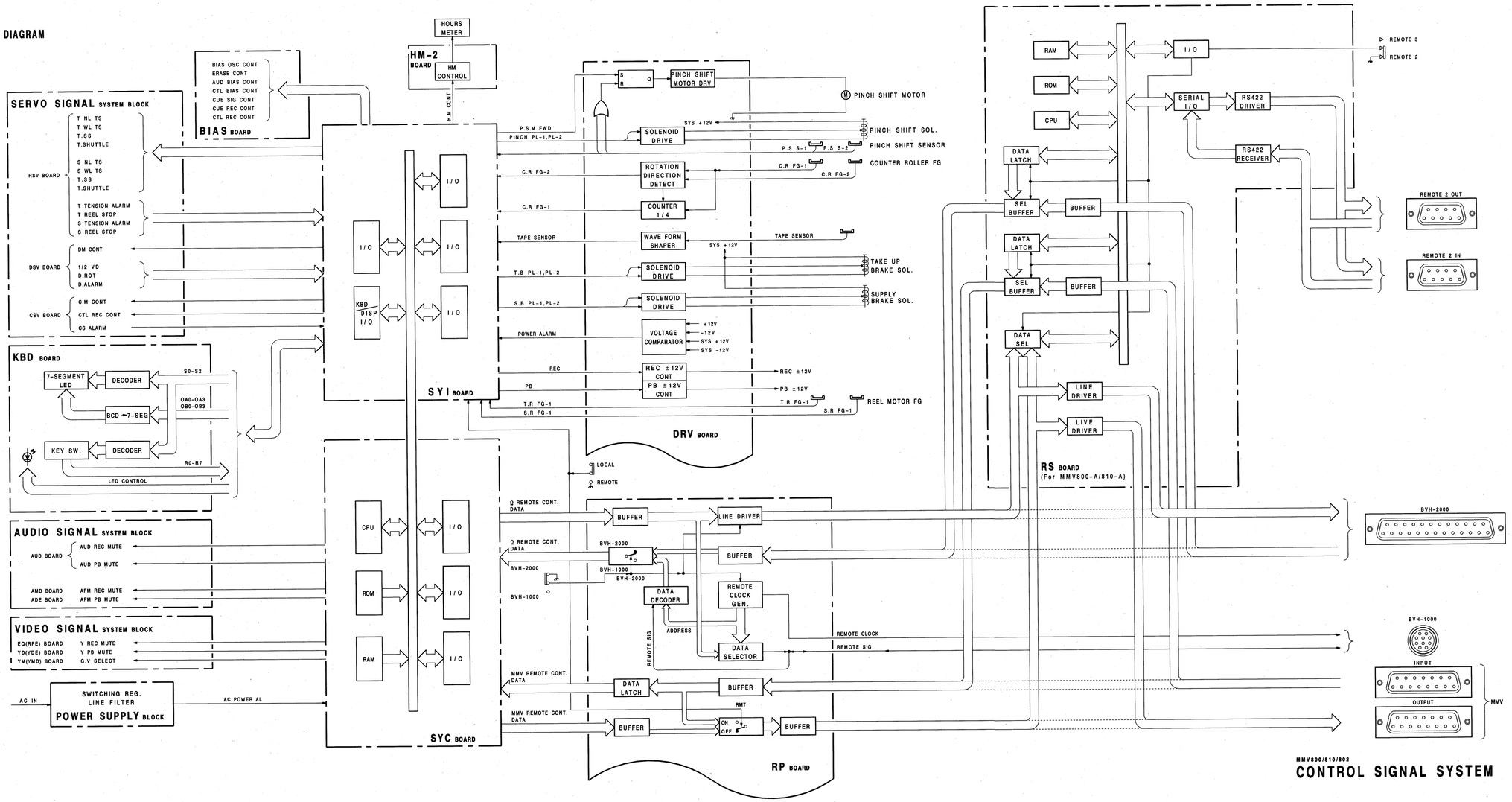
12-3

CONTROL SIGNAL SYSTEM

CONTROL SIGNAL SYSTEM

## CONTROL SIGNAL SYSTEM BLOCK DIAGRAM

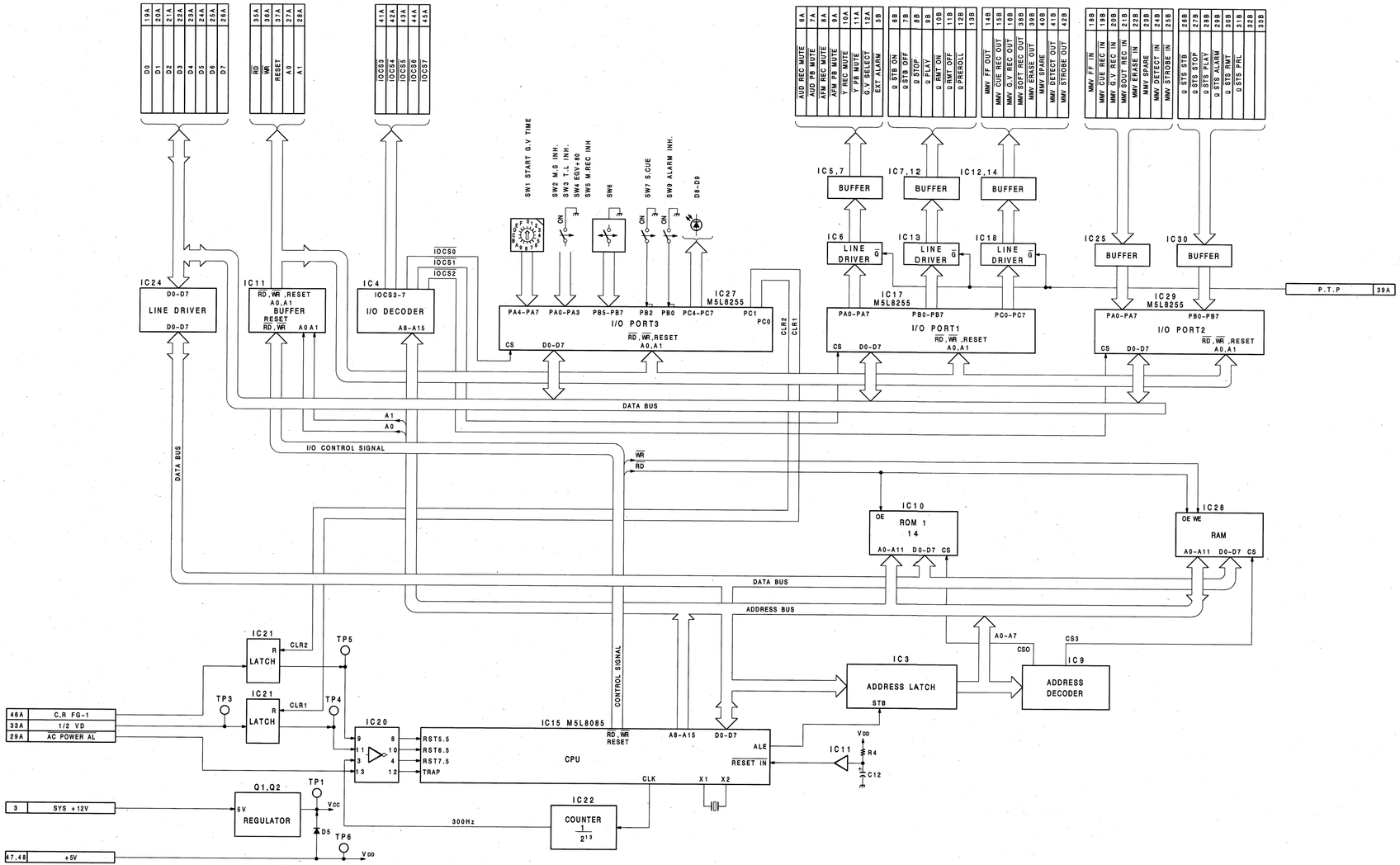
RP(1/2),DRV(1/2),RS BOARDS



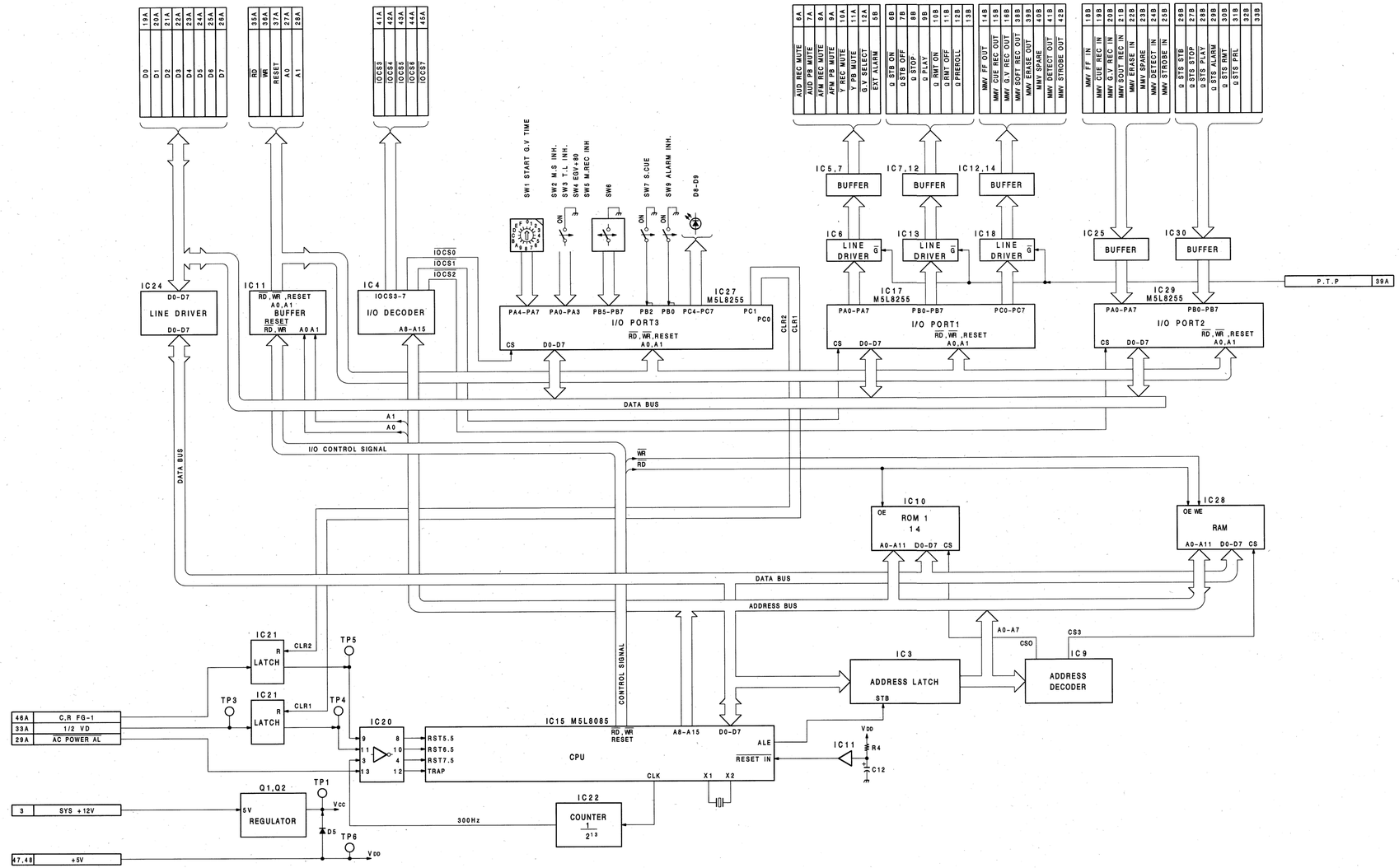



12-4

## SYC BOARD BLOCK DIAGRAM

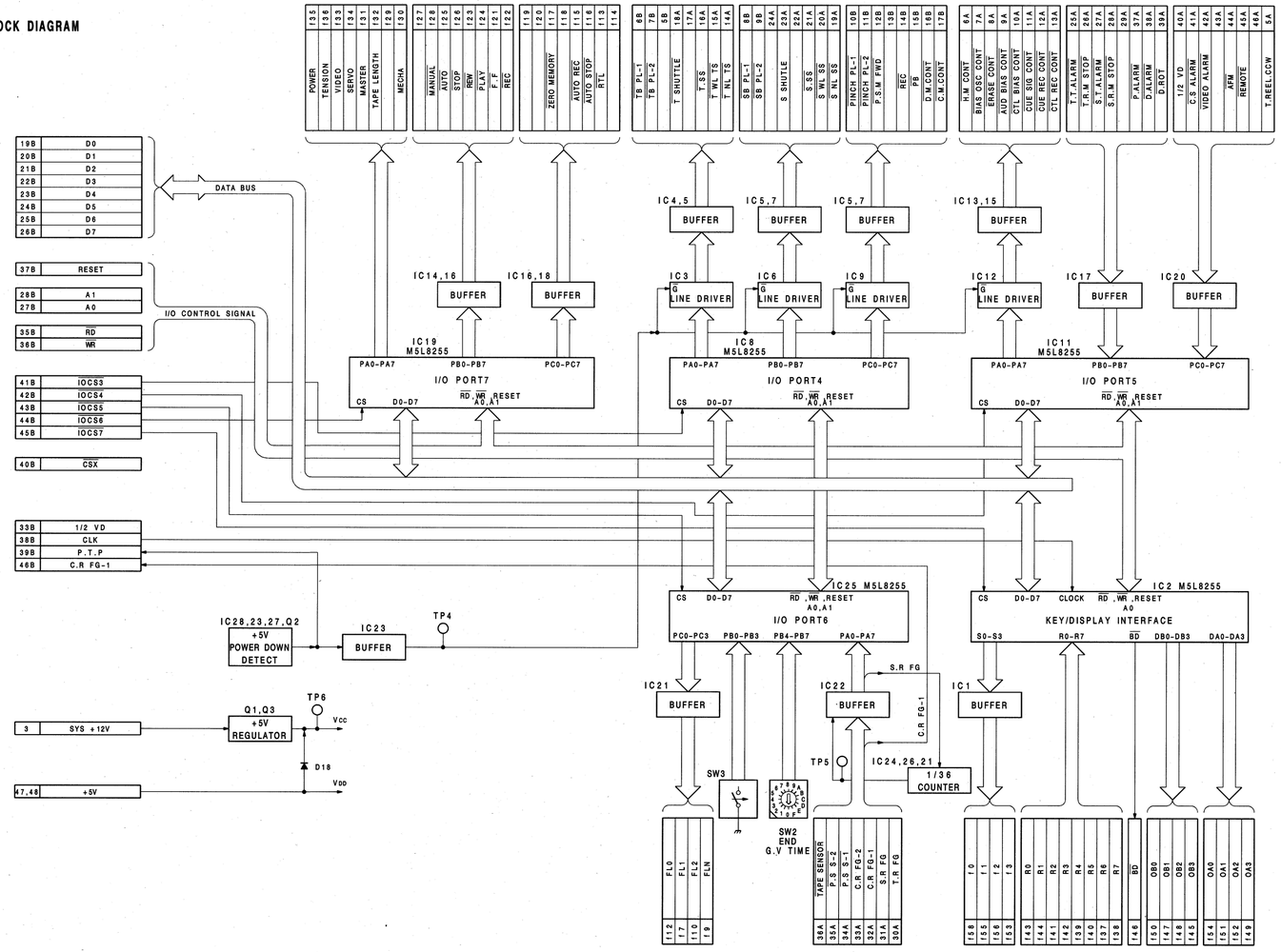


## SYC BOARD BLOCK DIAGRAM



SYI

## SYI BOARD BLOCK DIAGRAM



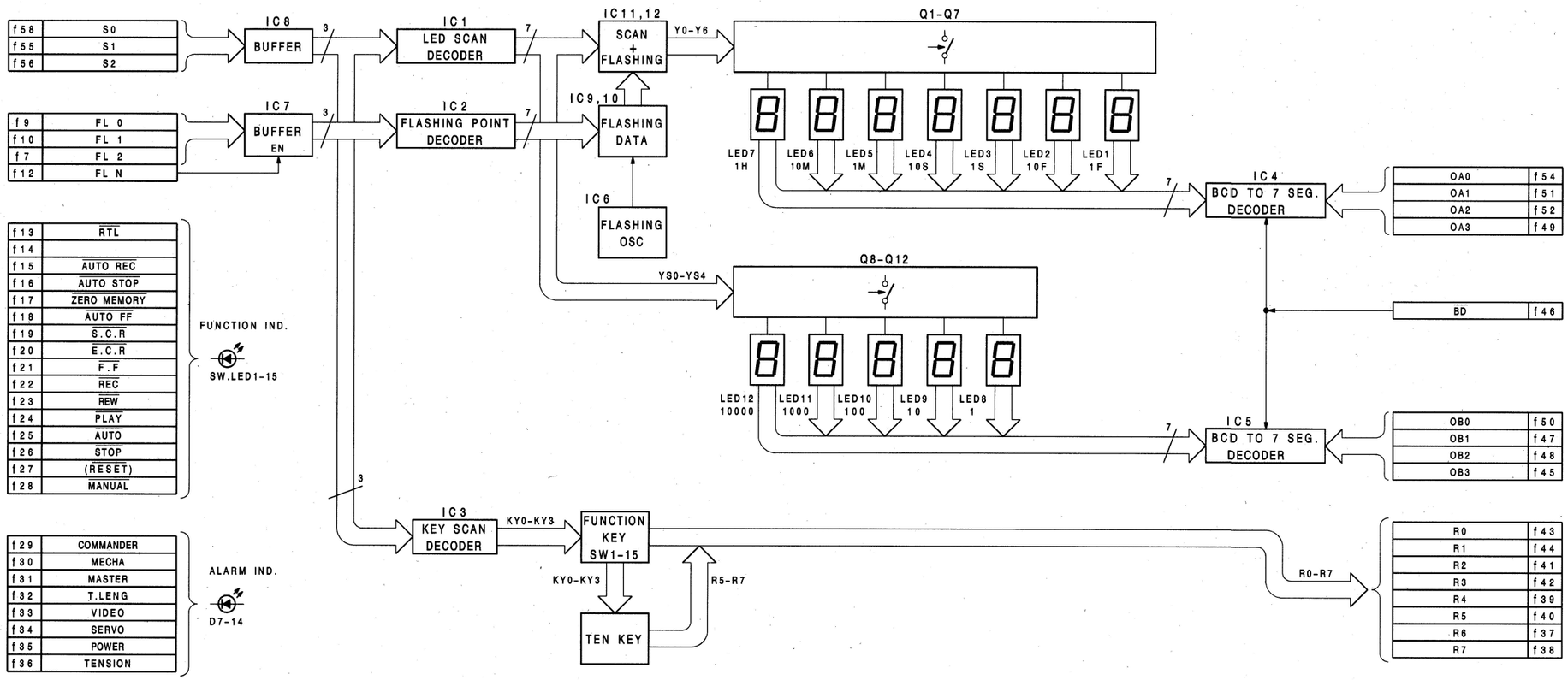

MMV800/810/802
**SYI BOARD**



12-6

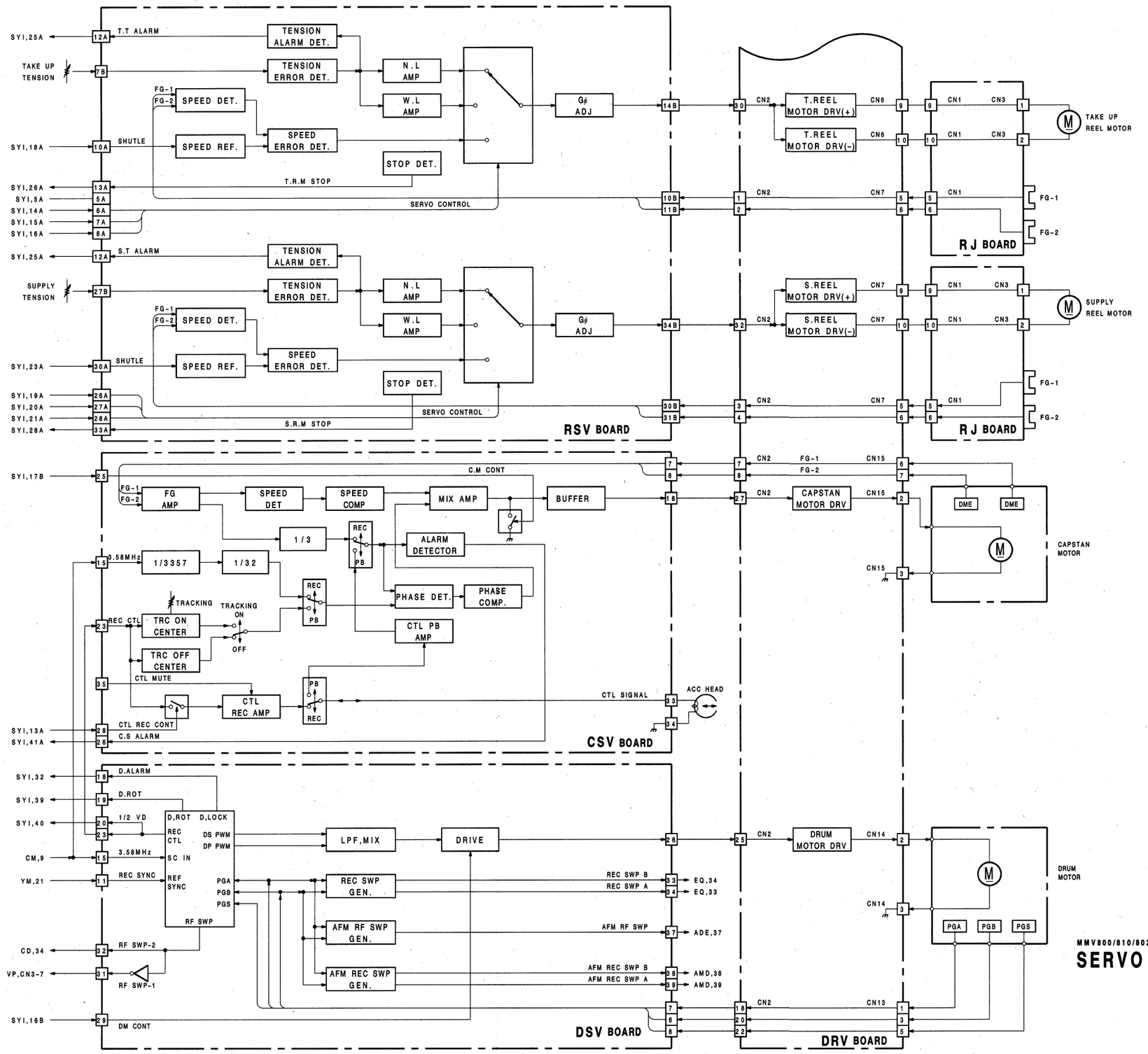
12-6

## KBD BOARD BLOCK DIAGRAM



SERVO SIGNAL SYSTEM

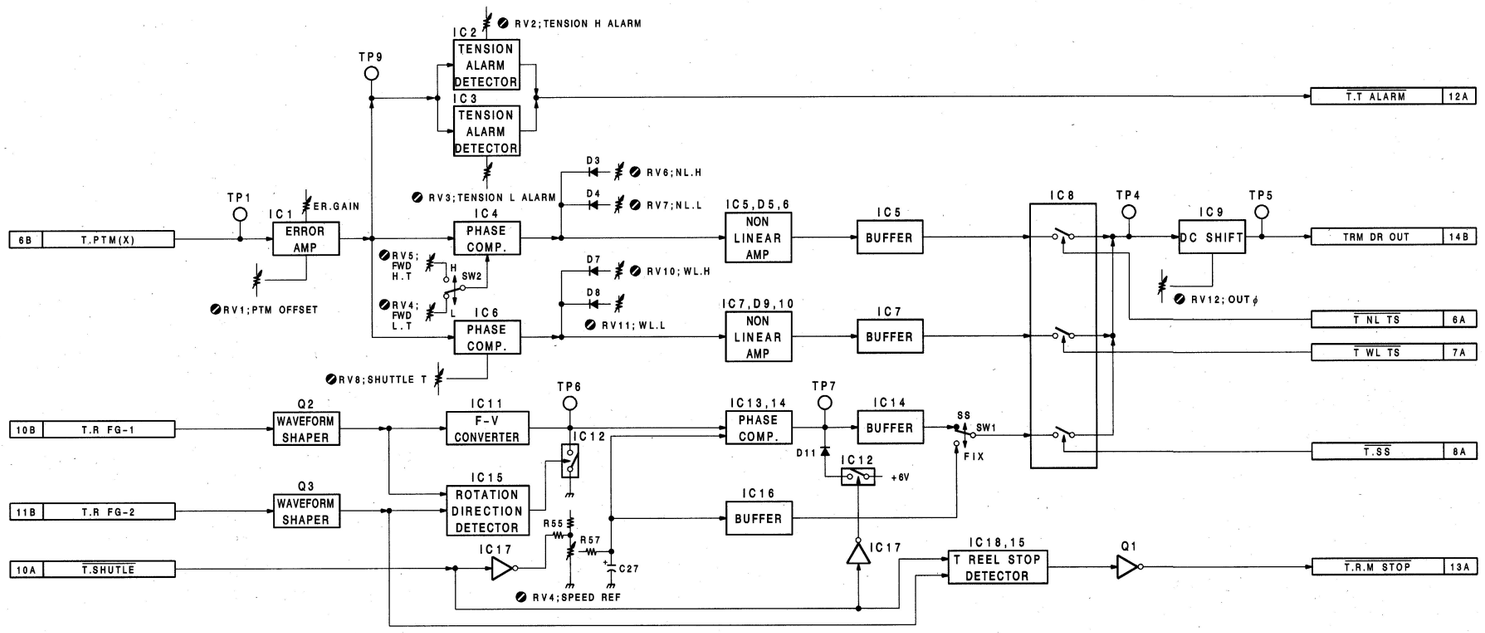
## SERVO SIGNAL SYSTEM BLOCK DIAGRAM

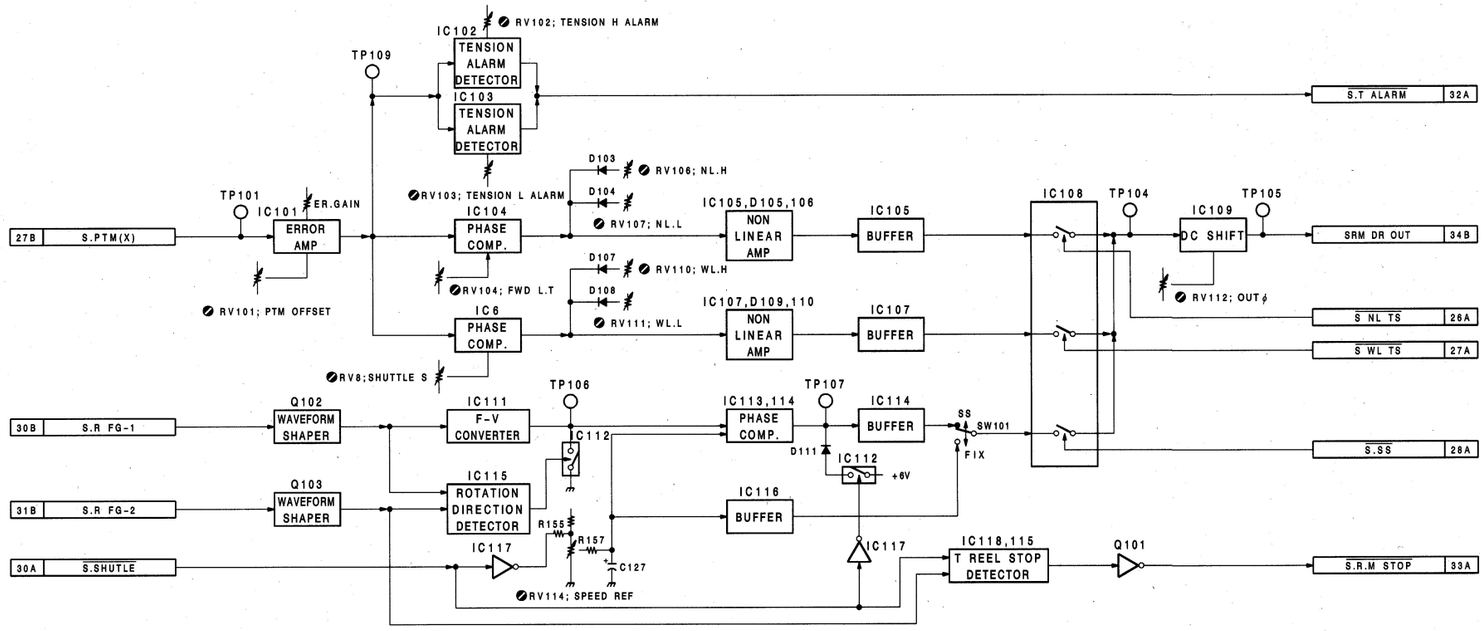




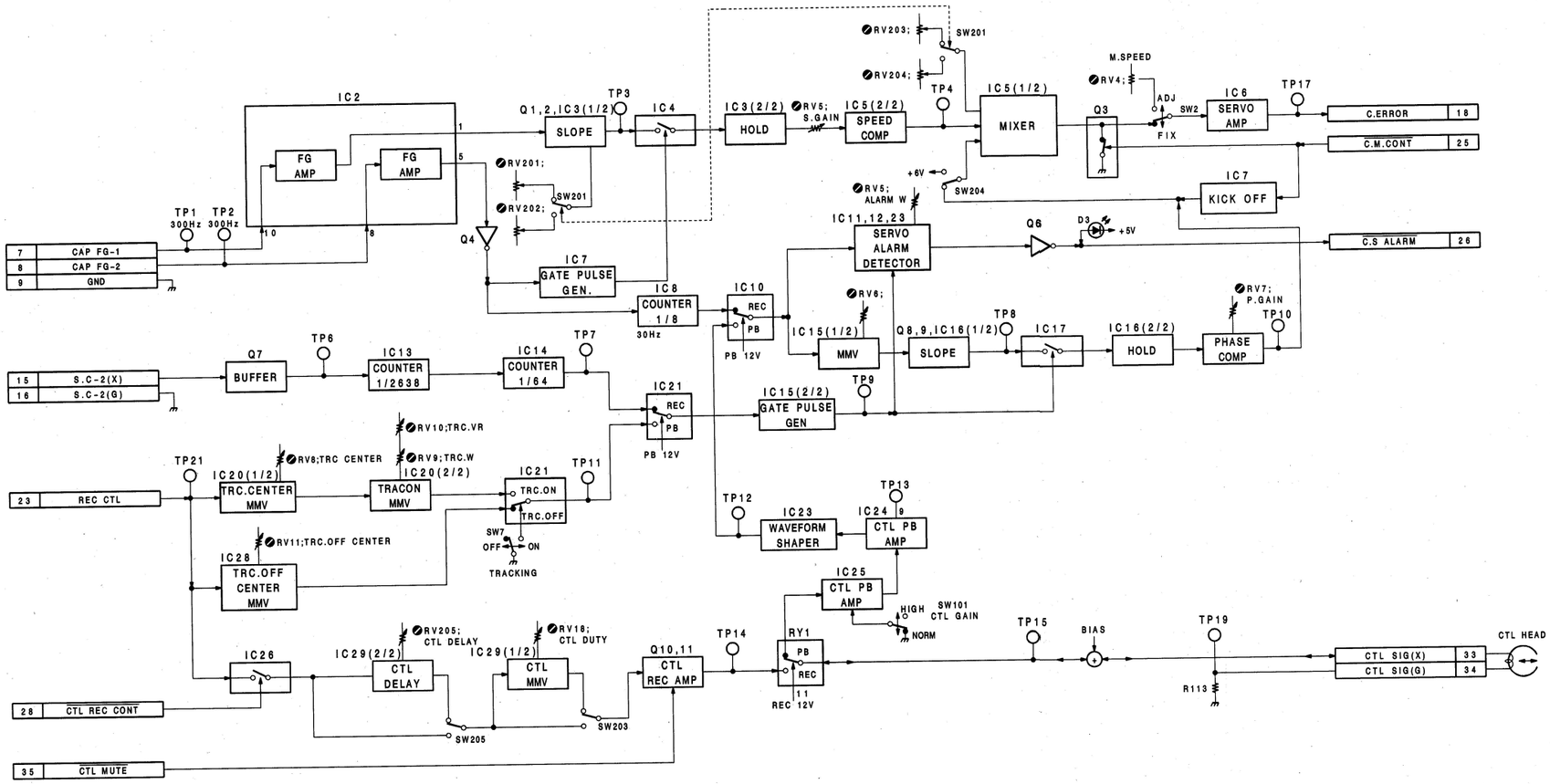
12-8

## RSV BOARD BLOCK DIAGRAM



## CSV BOARD BLOCK DIAGRAM



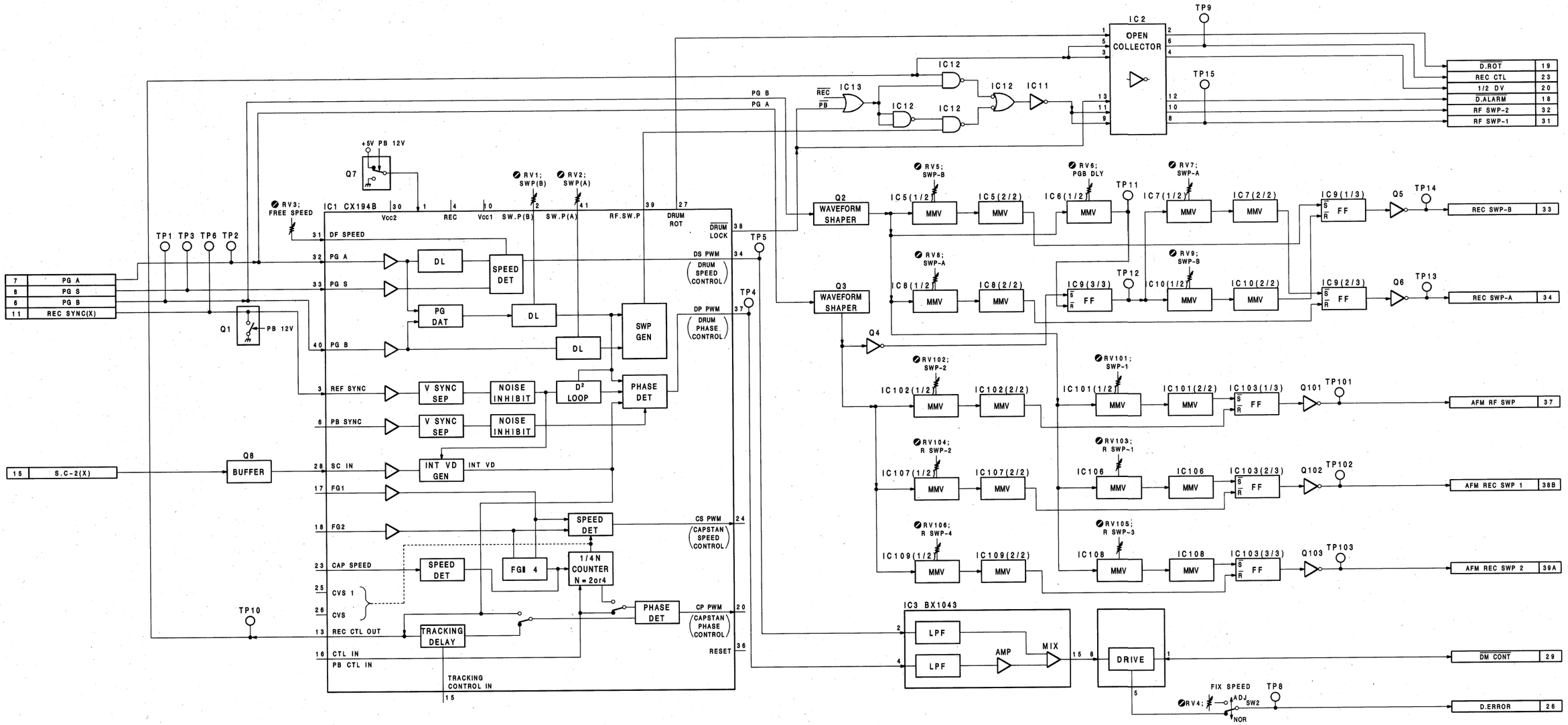

MMV800/810/802

**CSV BOARD**



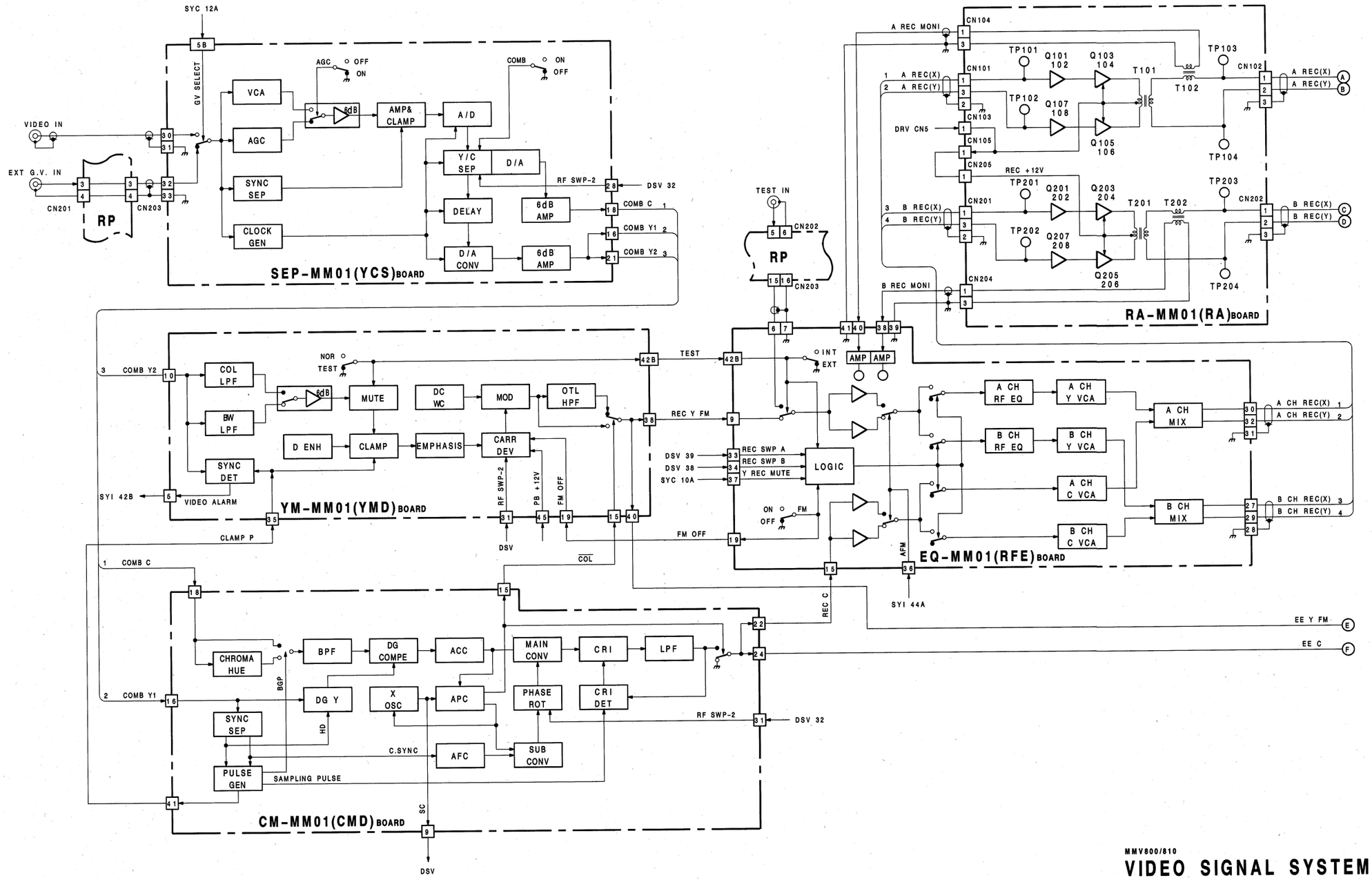
12-10

## DSV BOARD BLOCK DIAGRAM



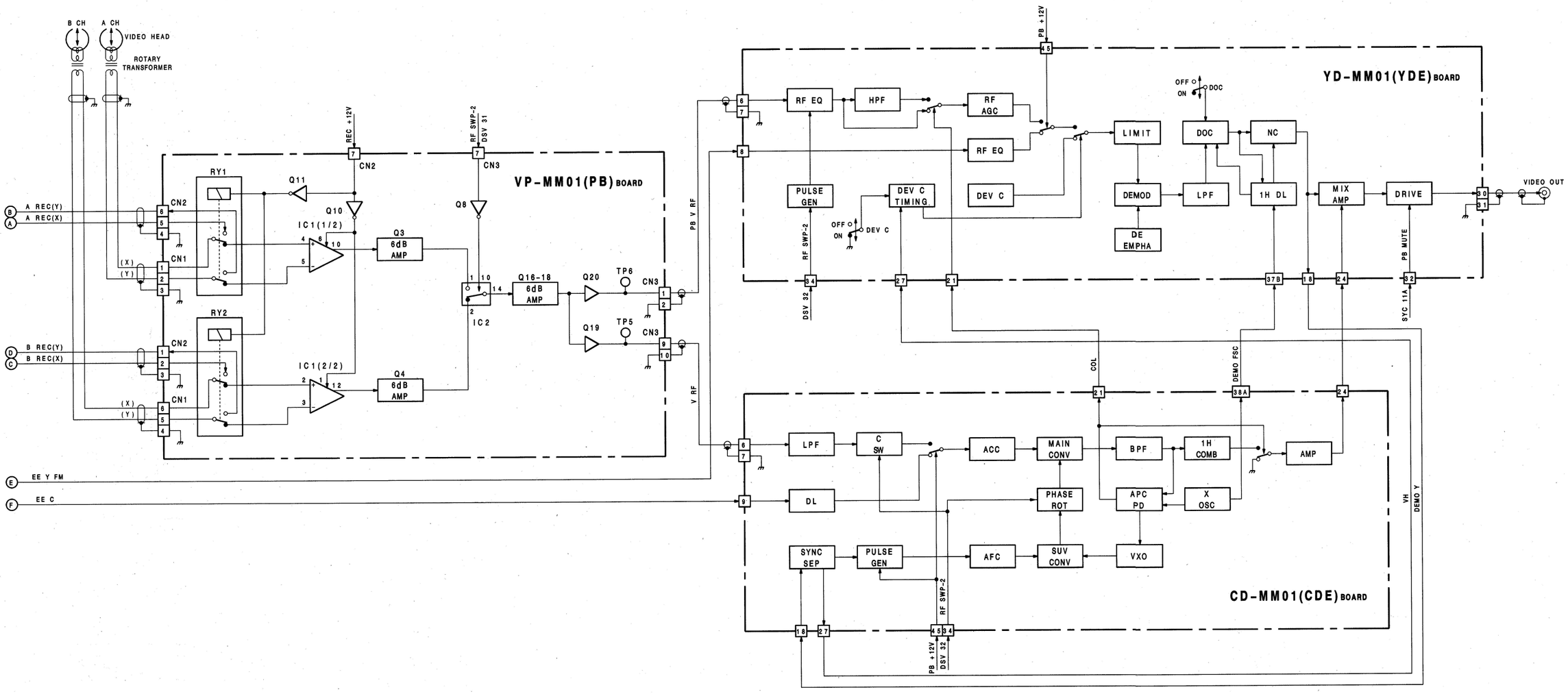
VIDEO SIGNAL SYSTEM(1/2) FOR MMV800/810

## VIDEO SIGNAL SYSTEM(1/2)BLOCK DIAGRAM
FOR MMV800/810



VIDEO SIGNAL SYSTEM(2/2) FOR MMV800/810

## VIDEO SIGNAL SYSTEM(2/2)BLOCK DIAGRAM
FOR MMV800/810



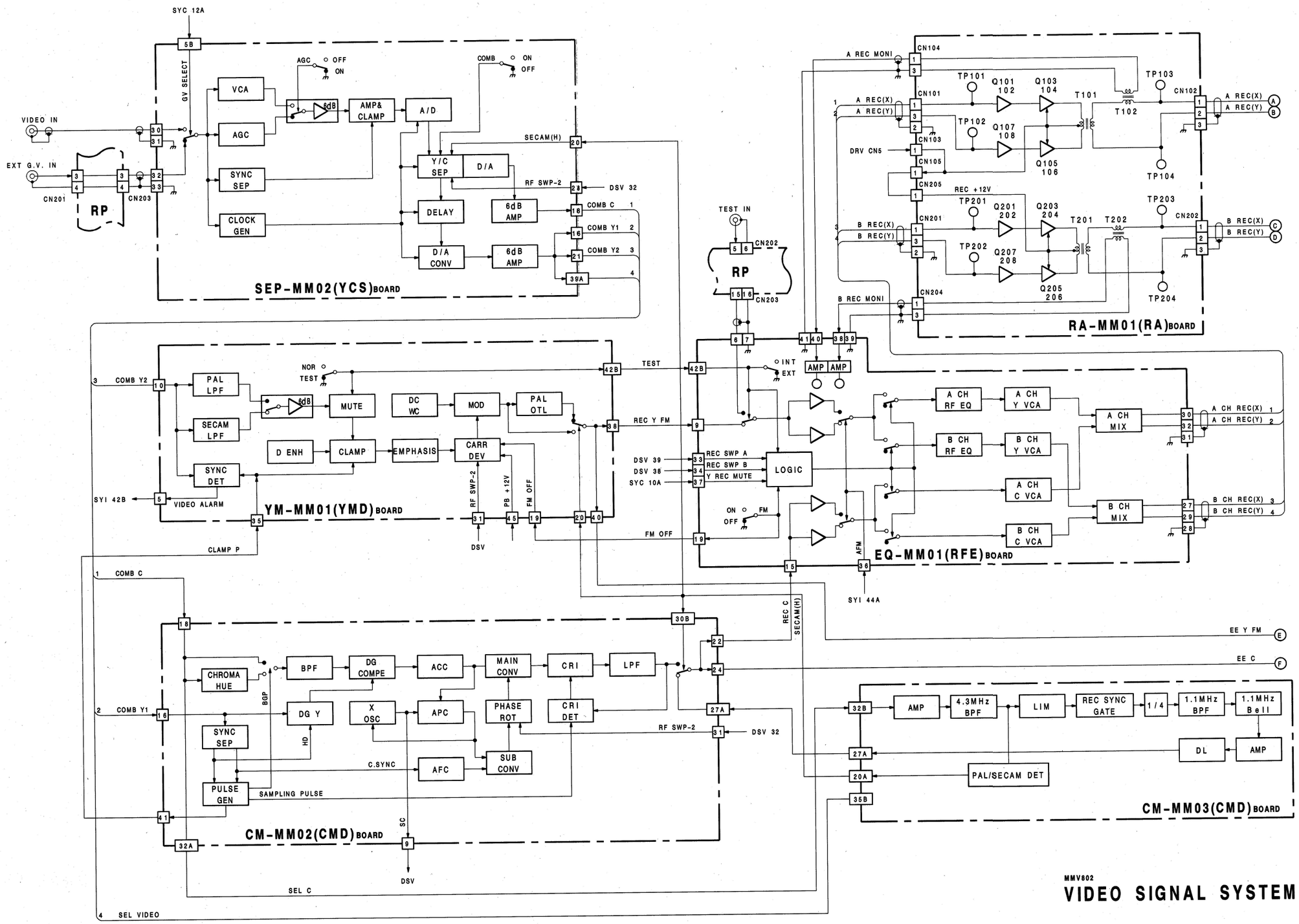



MMV800/810
## VIDEO SIGNAL SYSTEM(2/2)

12-13

VIDEO SIGNAL SYSTEM(1/2) FOR MMV802

## VIDEO SIGNAL SYSTEM(1/2)BLOCK DIAGRAM
FOR MMV802



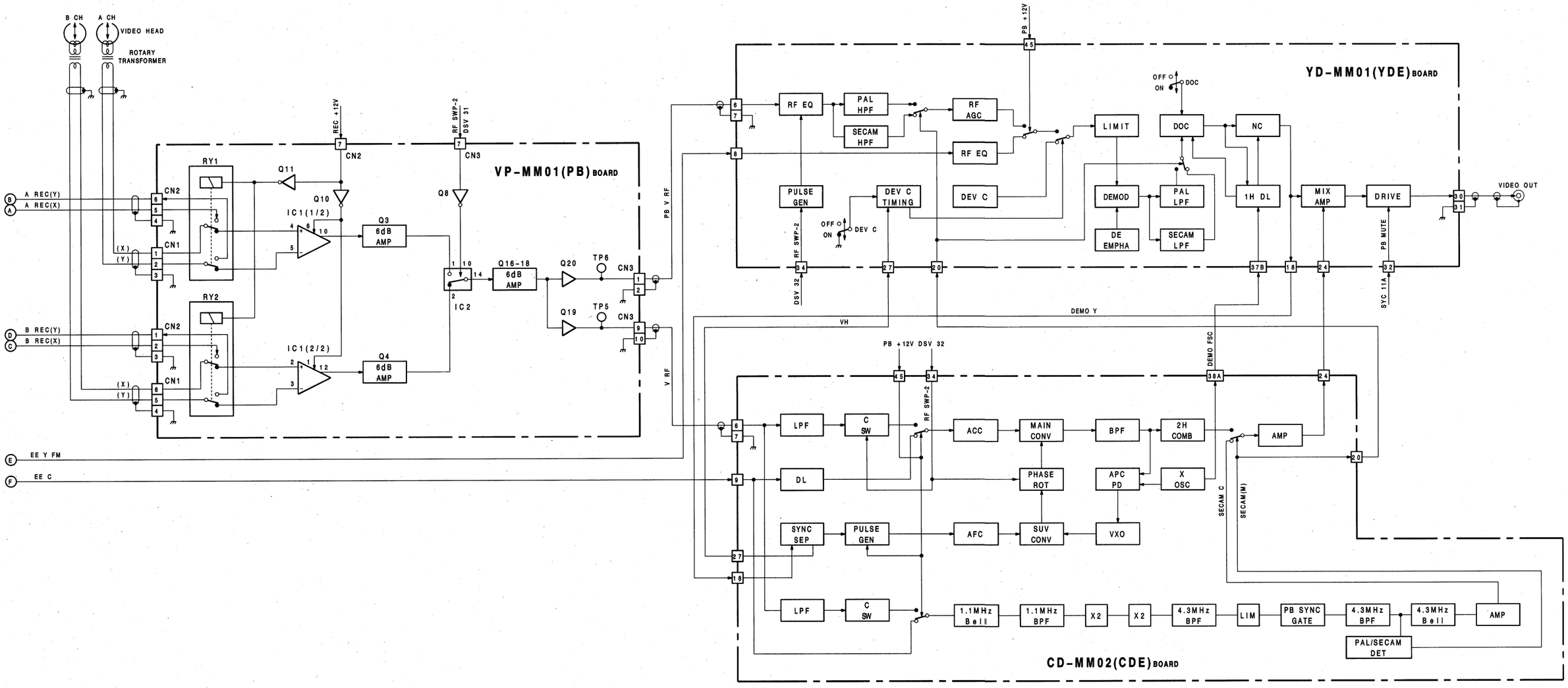


12-14

MMV802
## VIDEO SIGNAL SYSTEM(1/2)

VIDEO SIGNAL SYSTEM(2/2) FOR MMV802

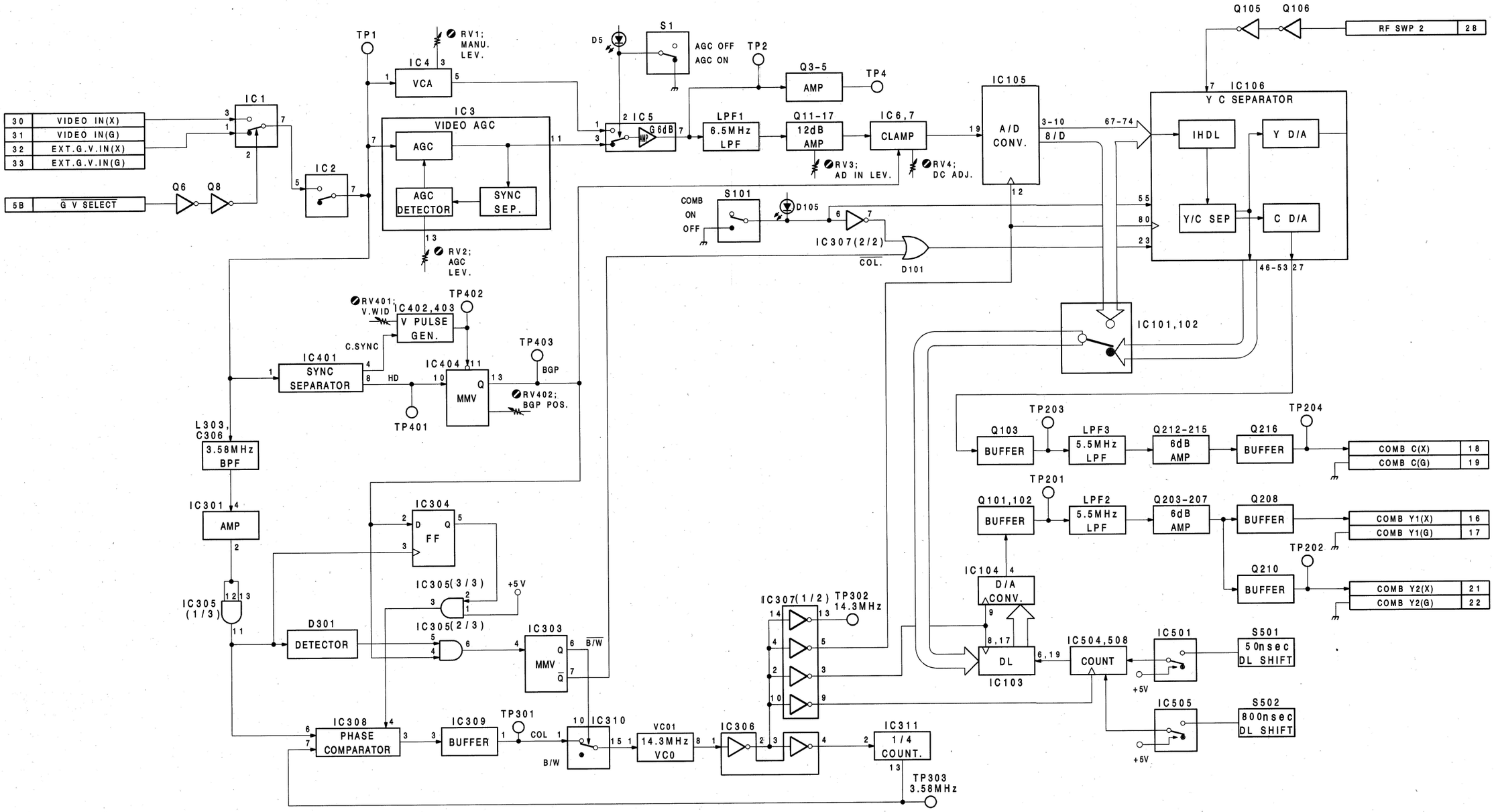
## VIDEO SIGNAL SYSTEM(2/2)BLOCK DIAGRAM
FOR MMV802




MMV802
## VIDEO SIGNAL SYSTEM(2/2)

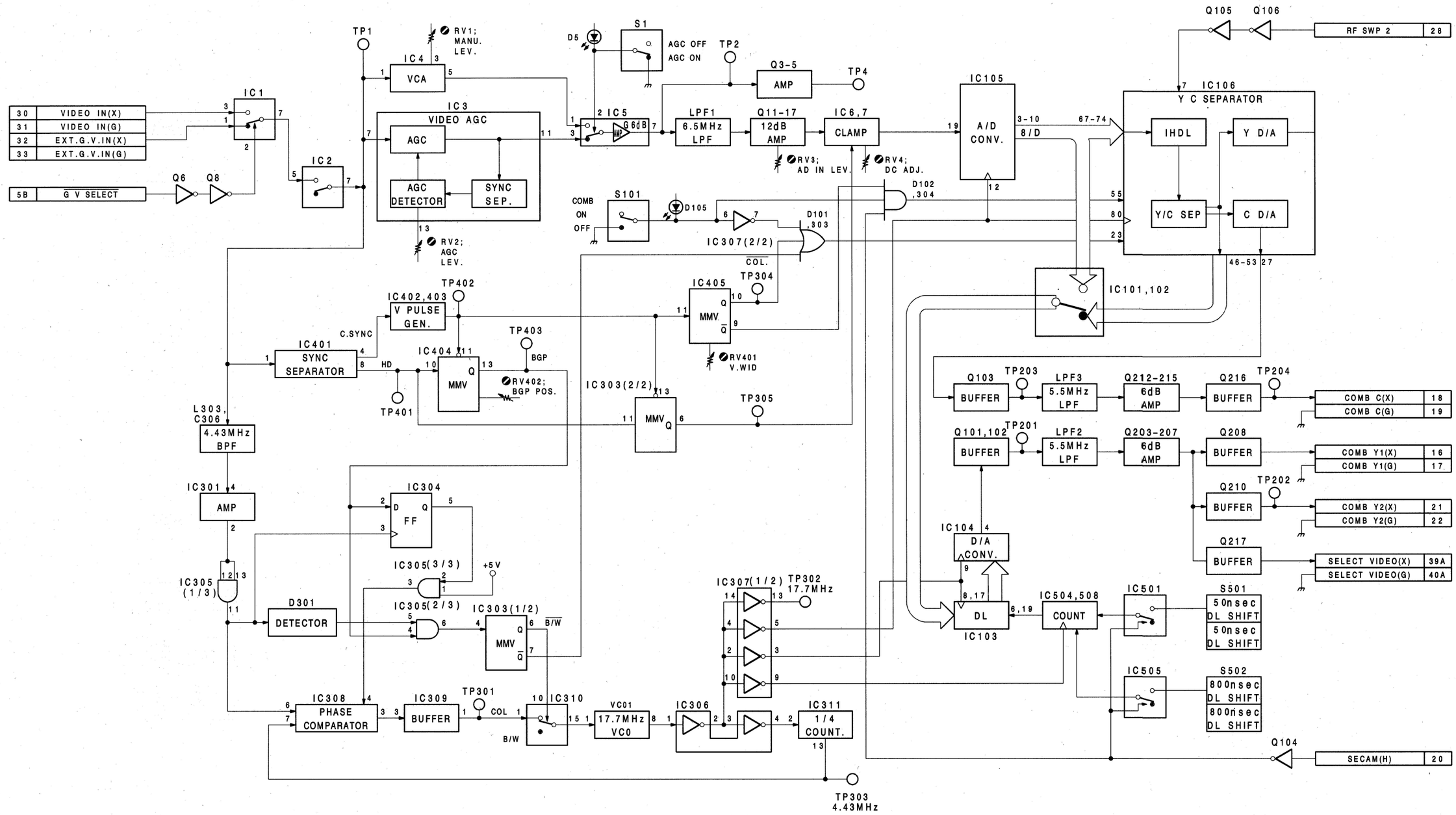

12-15

## SEP-MM01(YCS)BOARD BLOCK DIAGRAM
FOR MMV800/810




MMV800/810
**SEP-MM01(YCS)BOARD**

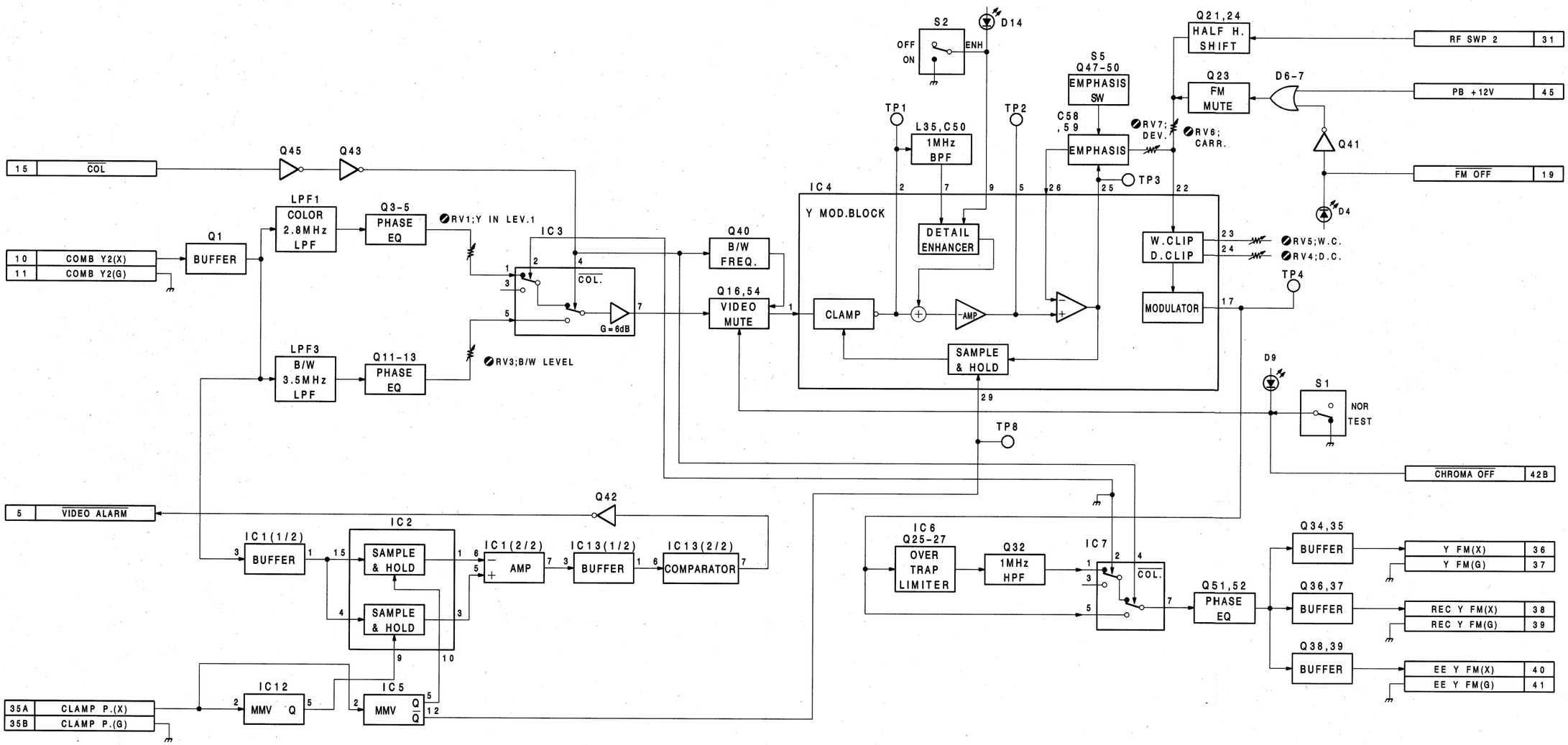
## SEP-MM02(YCS)BOARD BLOCK DIAGRAM
FOR MMV802




MMV802
**SEP-MM02(YCS)BOARD**

YM-MM01(YMD) FOR MMV800/810

## YM-MM01(YMD)BOARD BLOCK DIAGRAM
FOR MMV800/810



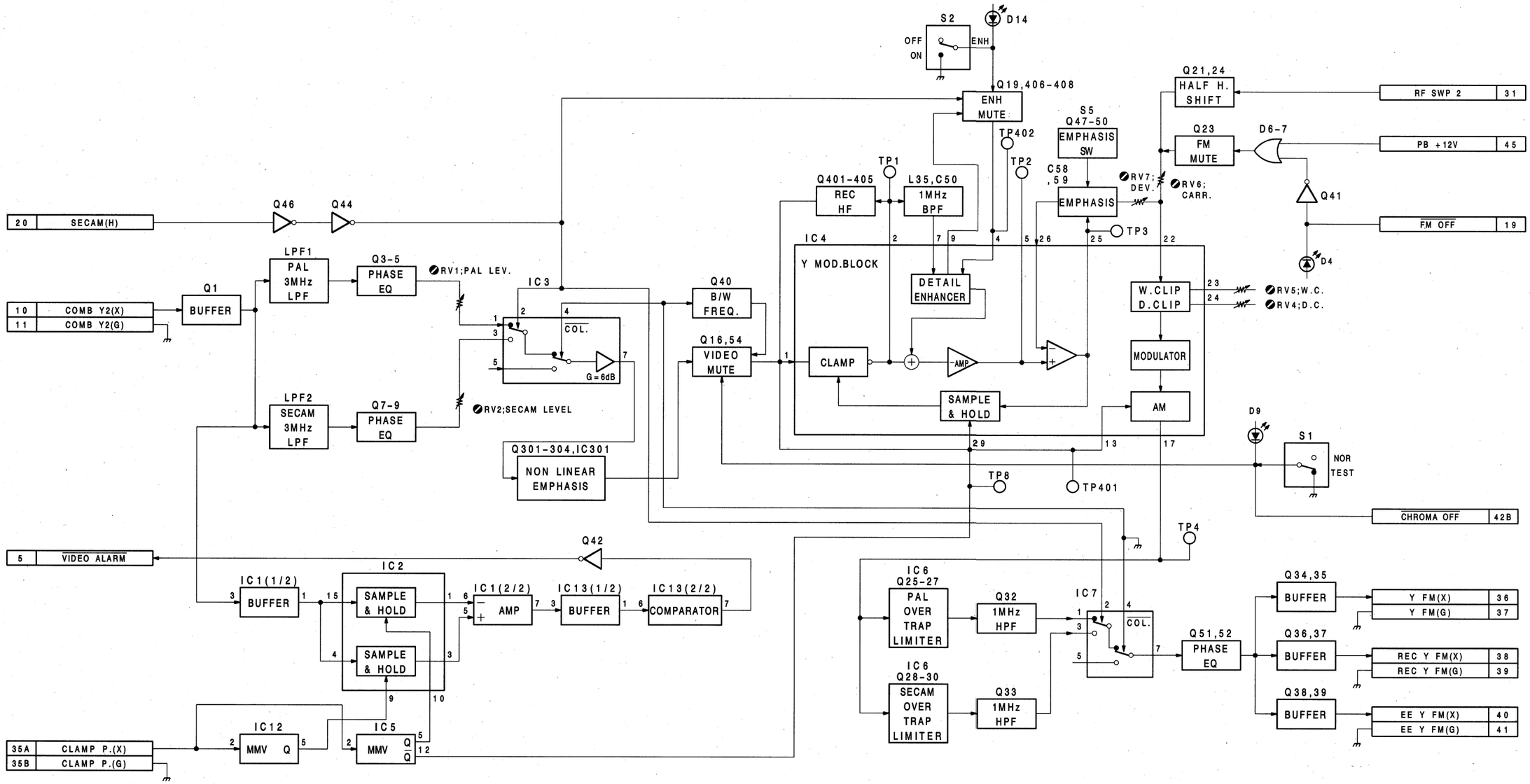



12-18

MMV800/810
**YM-MM01(YMD)BOARD**

(YMD)YM-MM01 FOR MMV802

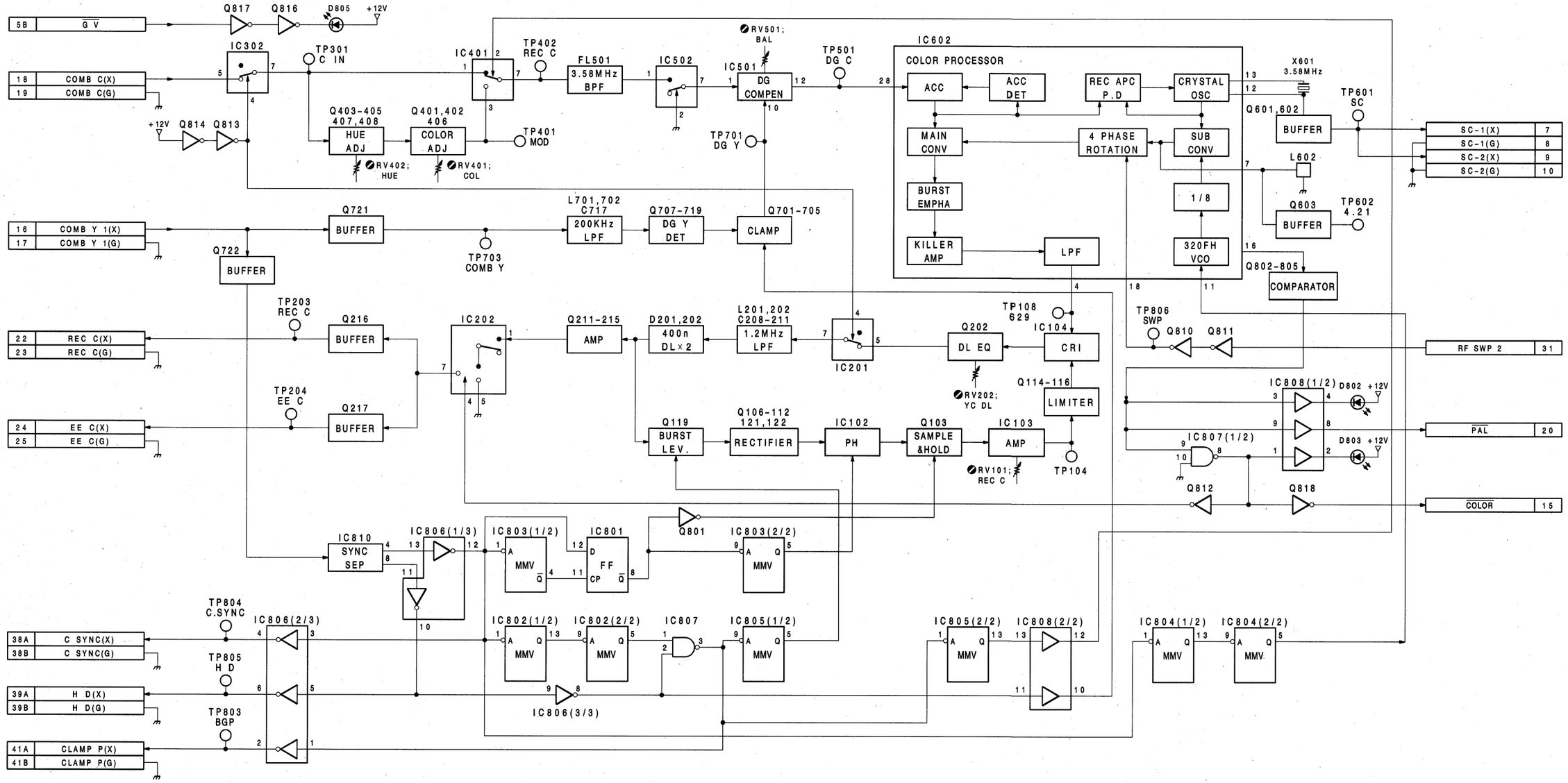
## YM-MM01(YMD)BOARD BLOCK DIAGRAM
FOR MMV802




MMV802
**YM-MM01(YMD)BOARD**

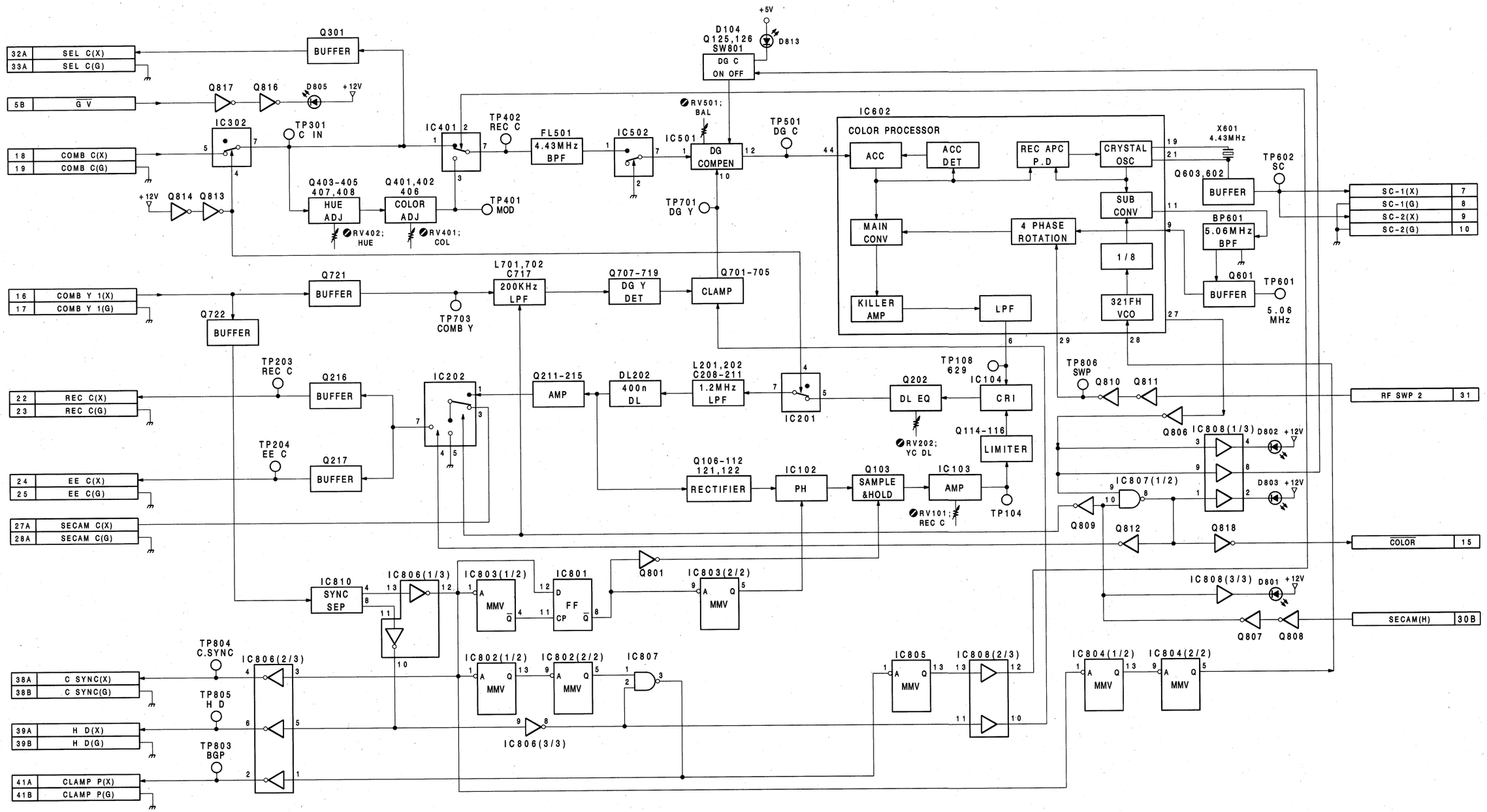

12-19

## CM-MM01(CMD)BOARD BLOCK DIAGRAM
FOR MMV800/810




MMV800/810
**CM-MM01(CMD)BOARD**

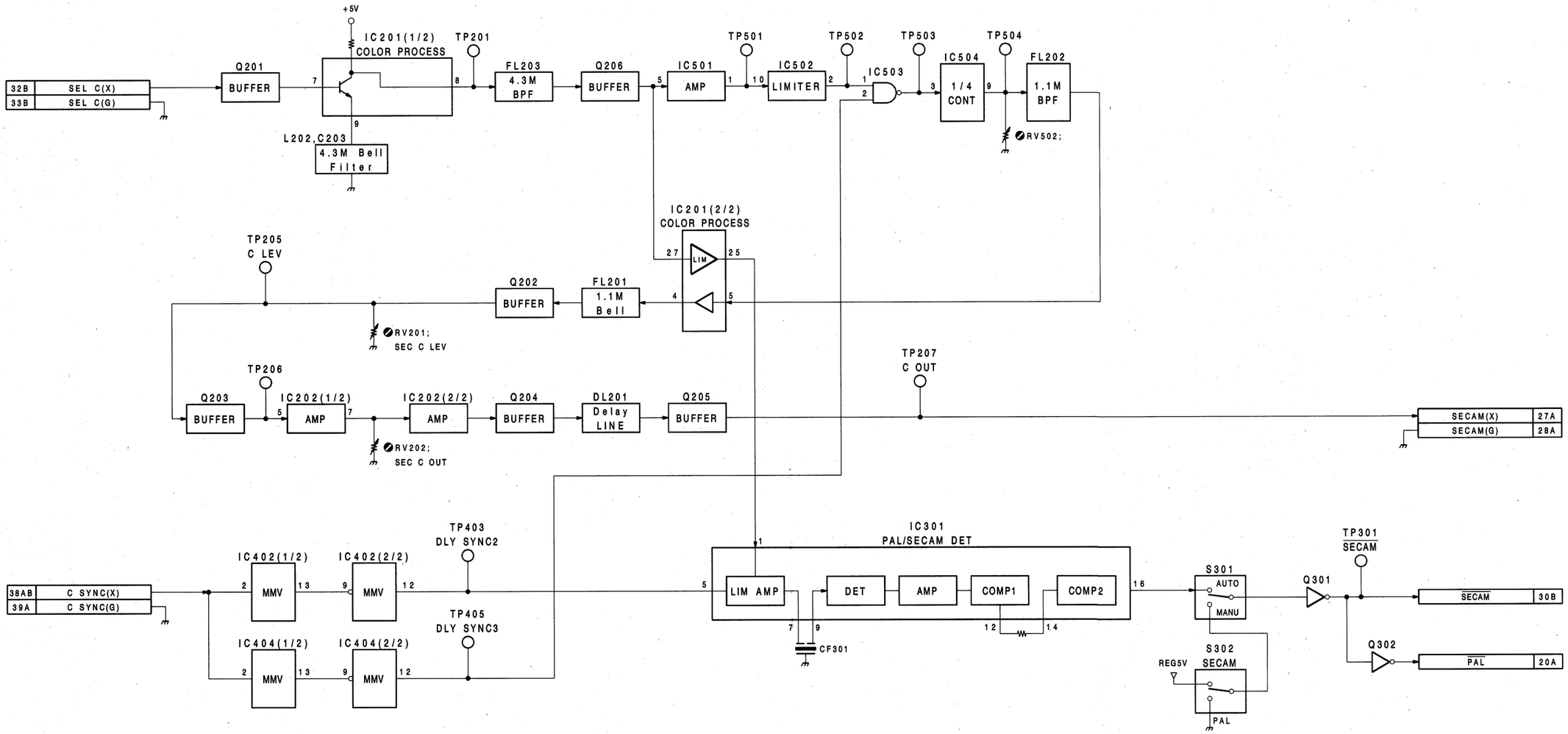
## CM-MM02(CMD)BOARD BLOCK DIAGRAM
FOR MMV802




MMV802
**CM-MM02(CMD)BOARD**


12-21

## CM-MM03(CMD)BOARD BLOCK DIAGRAM
FOR MMV802

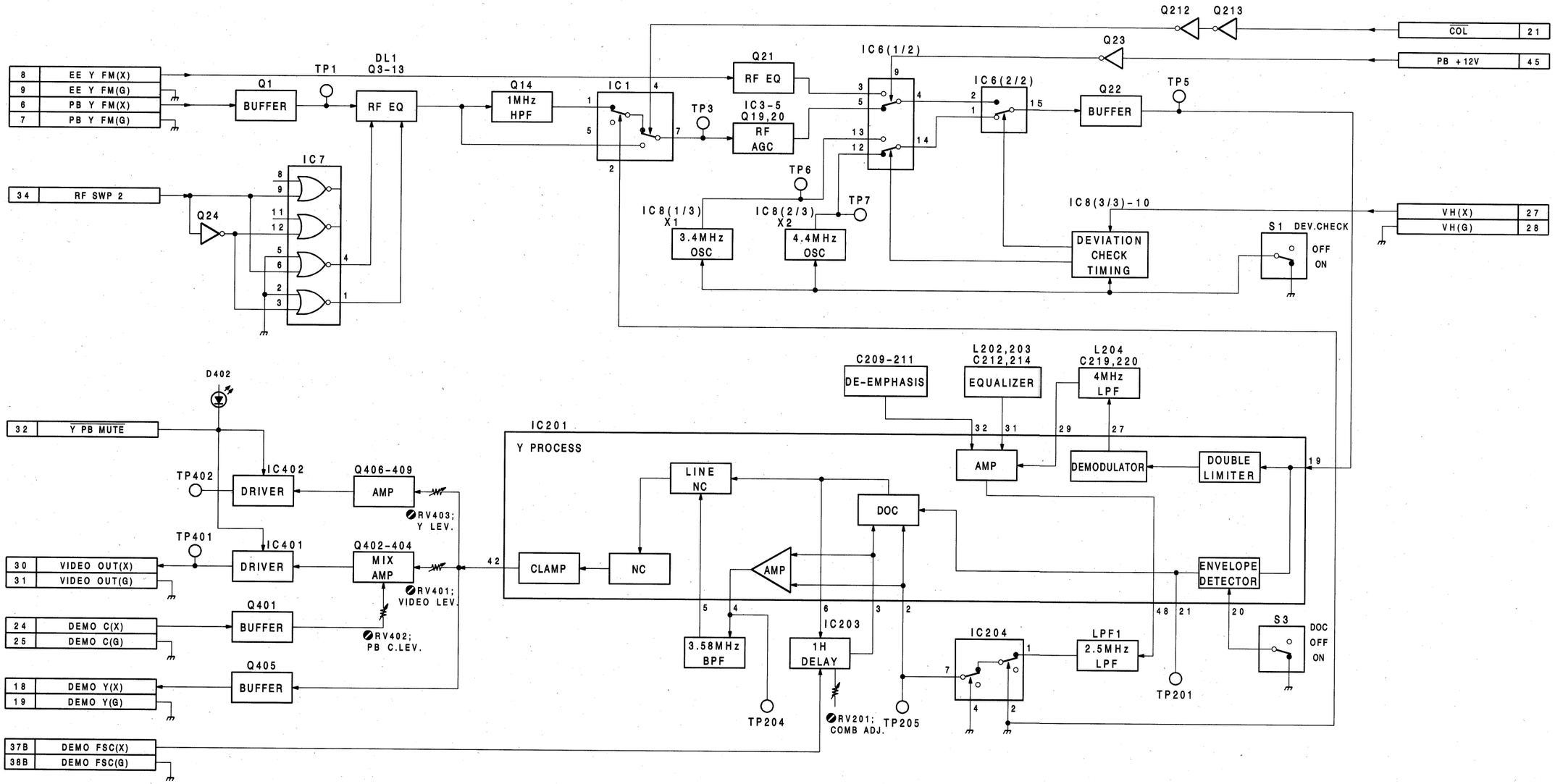



MMV802
**CM-MM03(CMD)BOARD**


12-22

YD-MM01(YDE) FOR MMV800/810

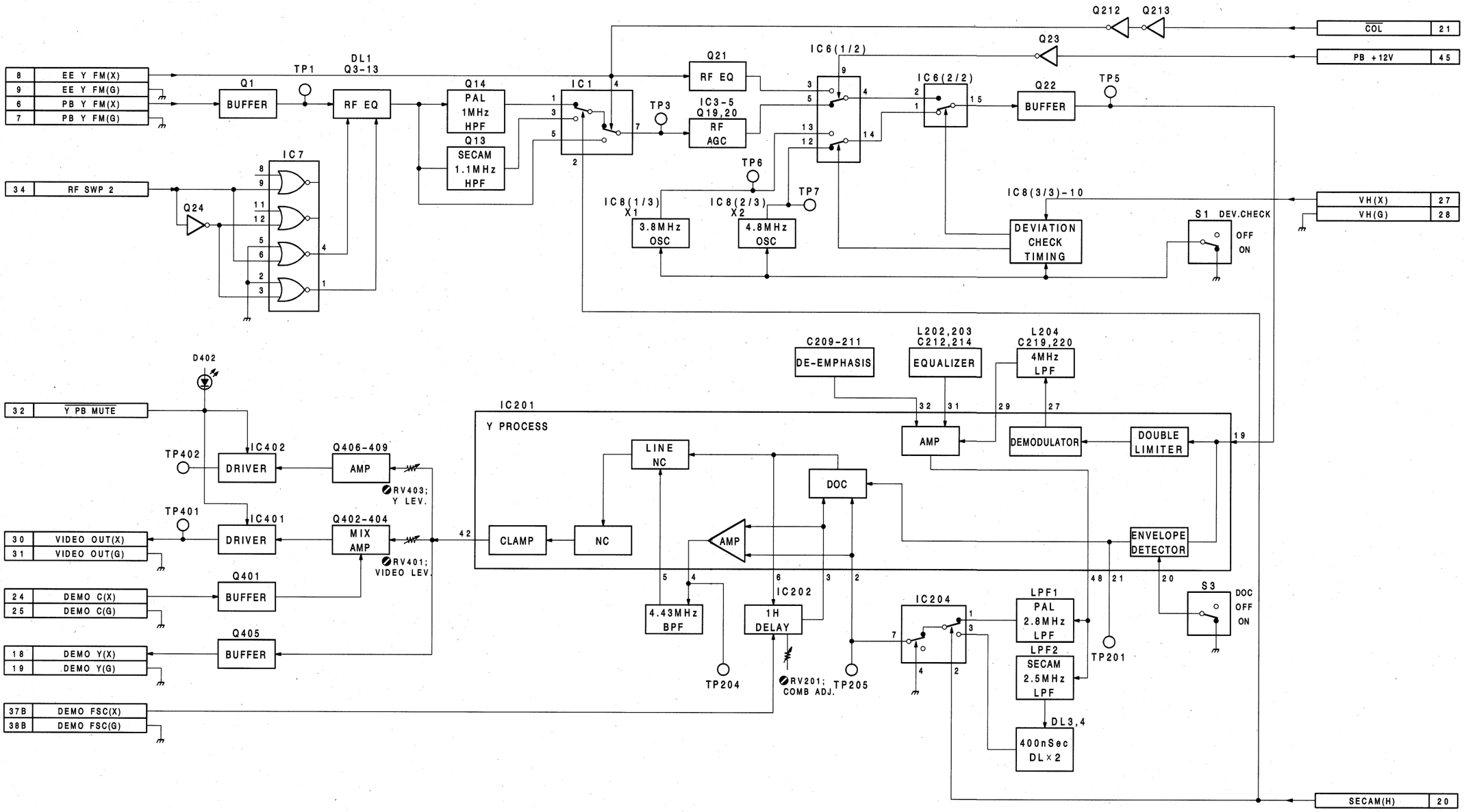
## YD-MM01(YDE)BOARD BLOCK DIAGRAM
FOR MMV800/810




MMV800/810
YD-MM01(YDE)BOARD


12-23

## YD-MM01(YDE)BOARD BLOCK DIAGRAM
FOR MMV802

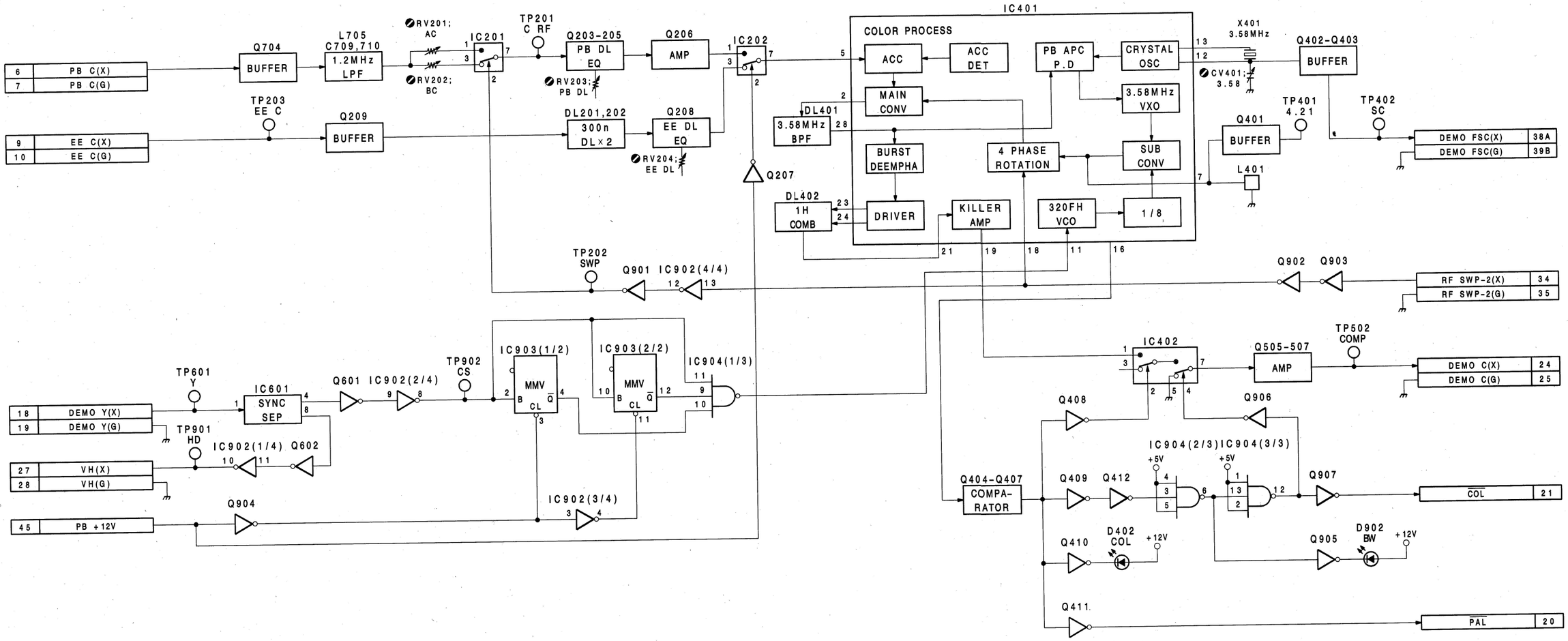



MMV802
**YD-MM01(YDE)BOARD**


12-24

CD-MM01(CDE) FOR MMV800/810

## CD-MM01(CDE)BOARD BLOCK DIAGRAM
FOR MMV800/810

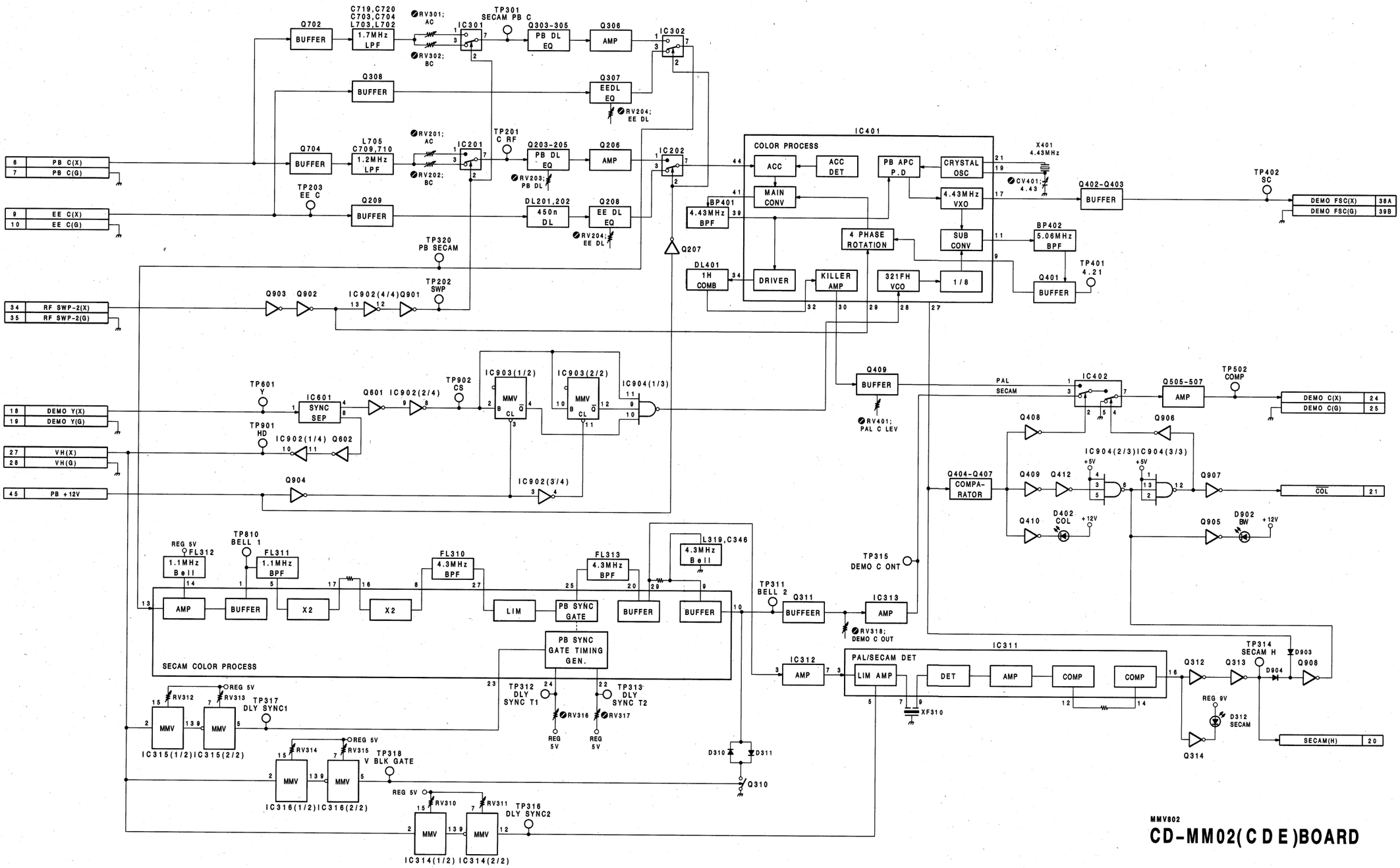




12-25

MMV800/810
**CD-MM01(CDE)BOARD**

## CD-MM02(CDE)BOARD BLOCK DIAGRAM
### FOR MMV802



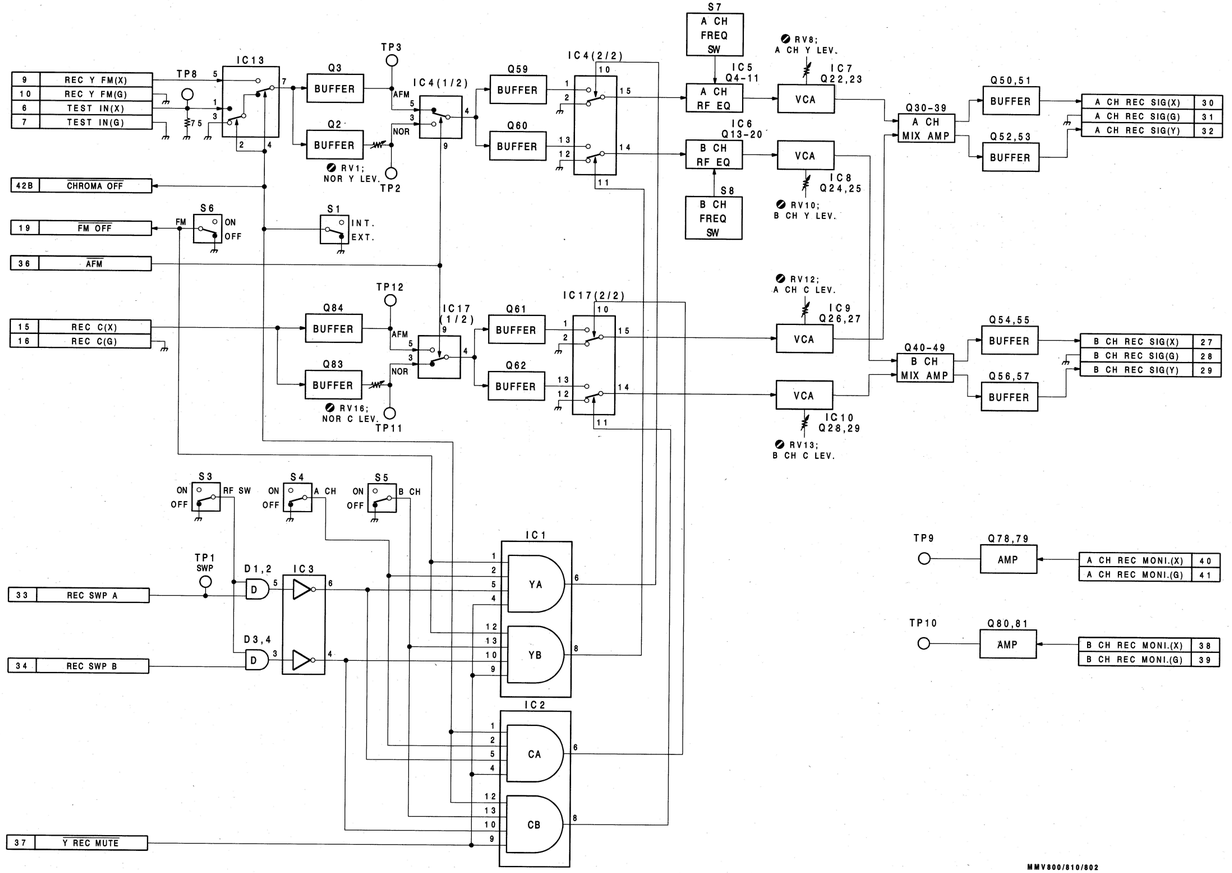

MMV802
**CD-MM02(CDE)BOARD**



12-26

EQ-MM01(RFE)
EQ-MM01(RFE)

## EQ-MM01(RFE)BOARD BLOCK DIAGRAM




MMV800/810/802

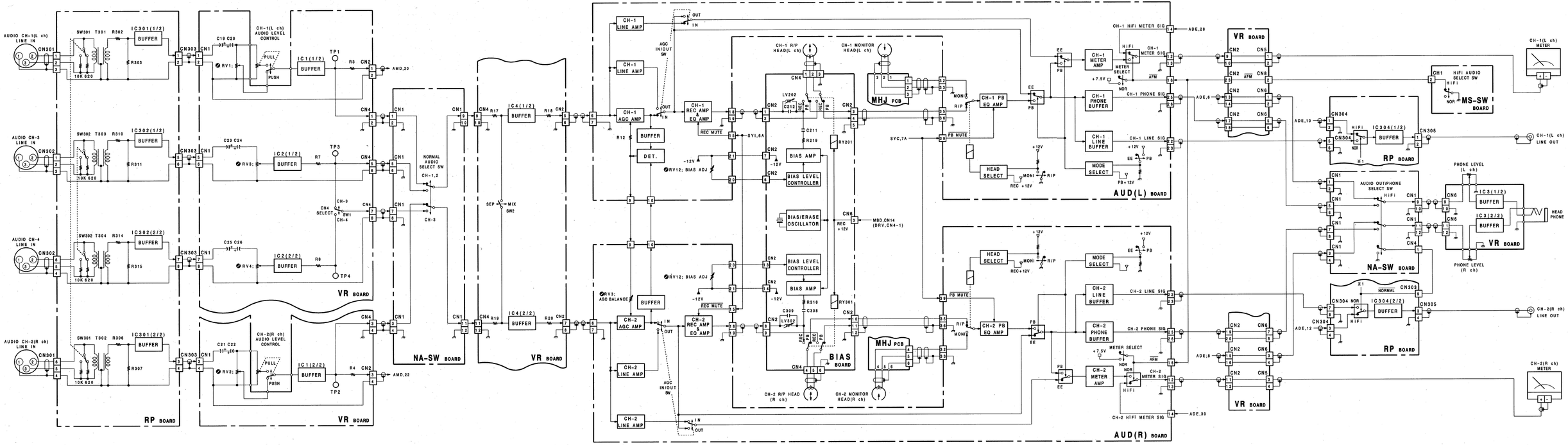
**EQ-MM01(RFE)BOARD**


12-27
12-27

AUDIO SIGNAL SYSTEM

AUDIO SIGNAL SYSTEM

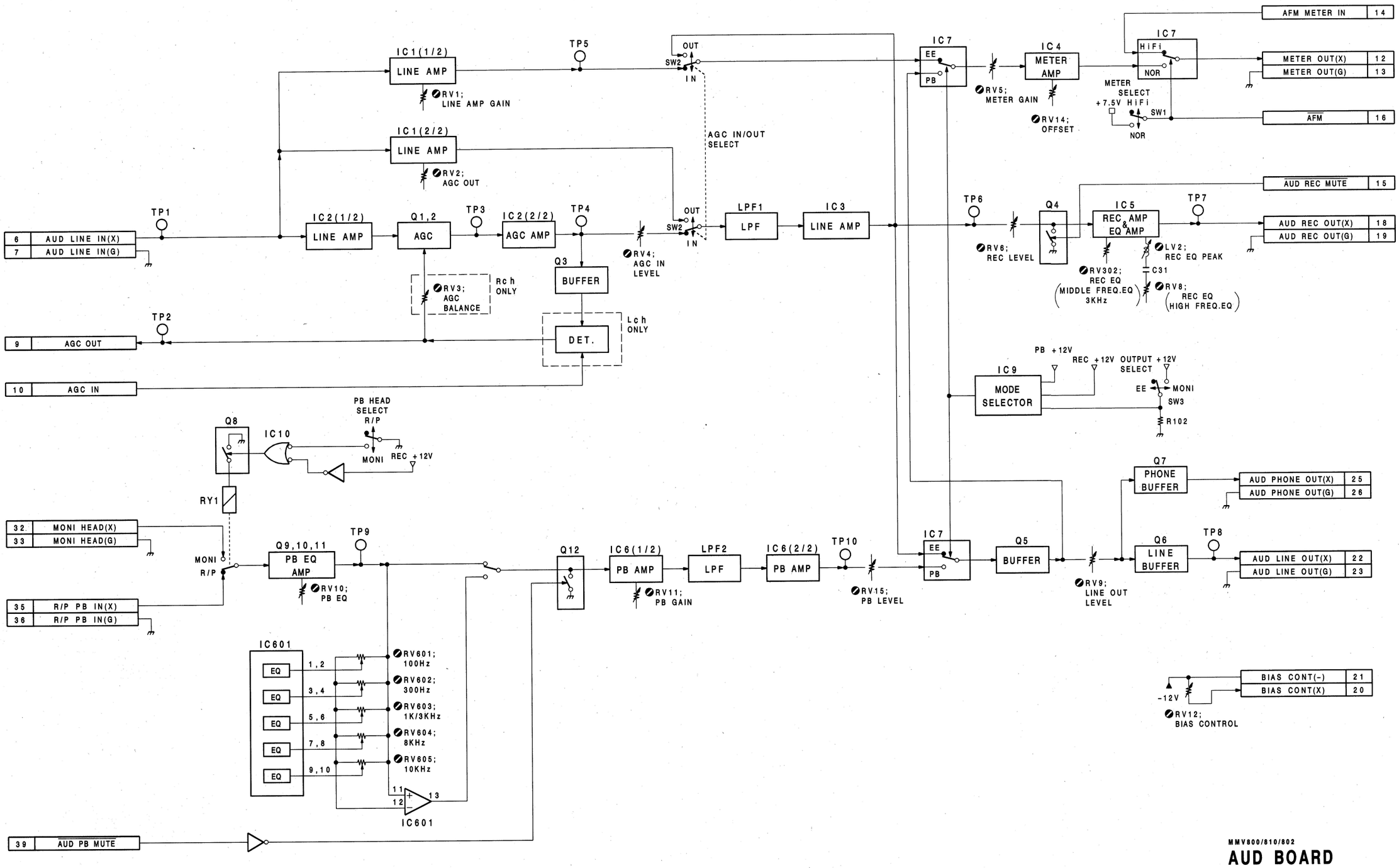
## AUDIO SIGNAL SYSTEM BLOCK DIAGRAM



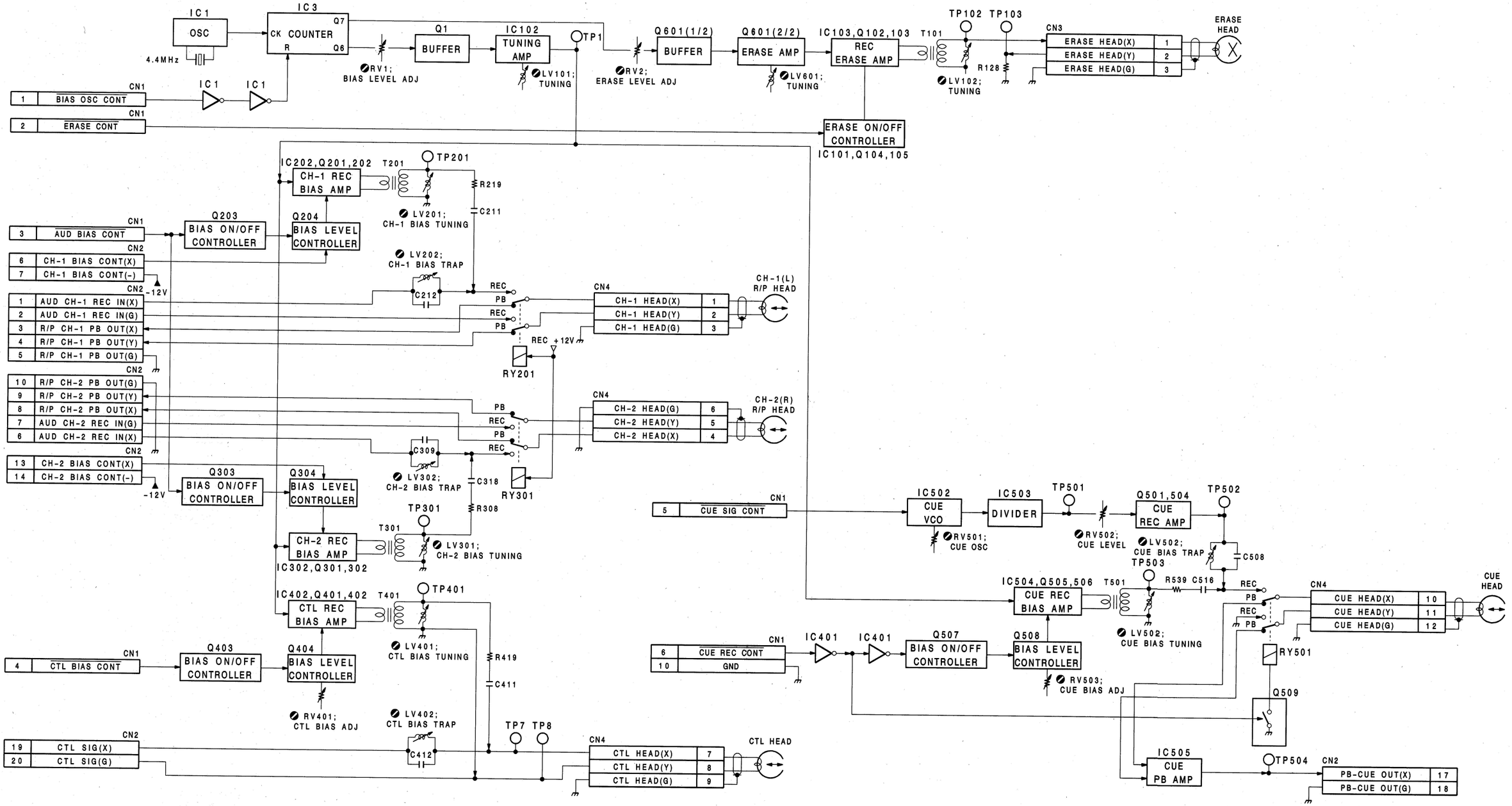



12-28

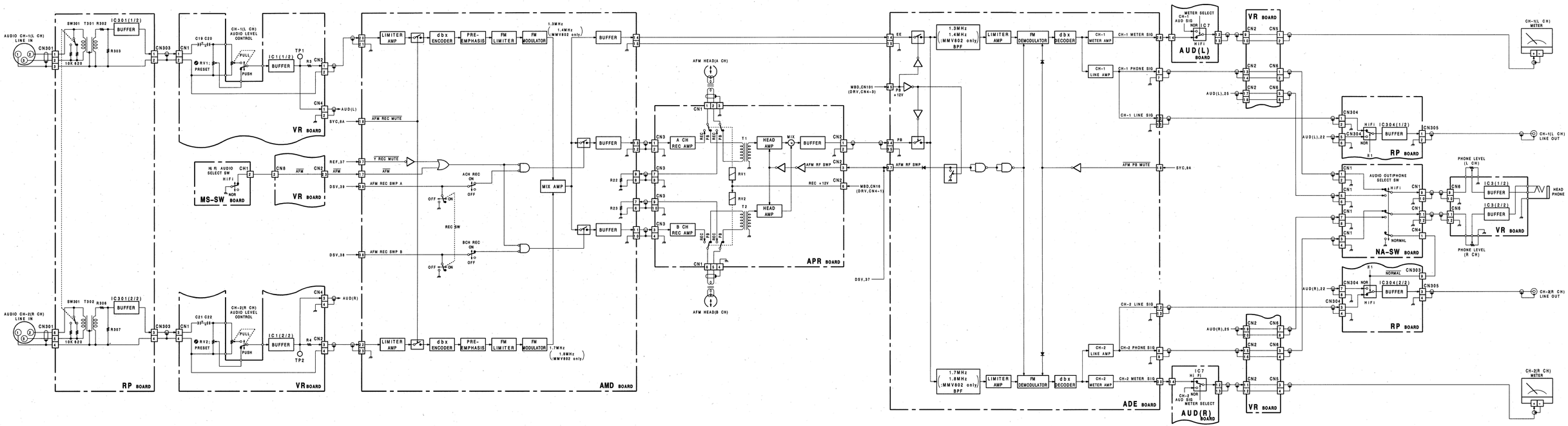
## AUD BOARD BLOCK DIAGRAM



## BIAS BOARD BLOCK DIAGRAM



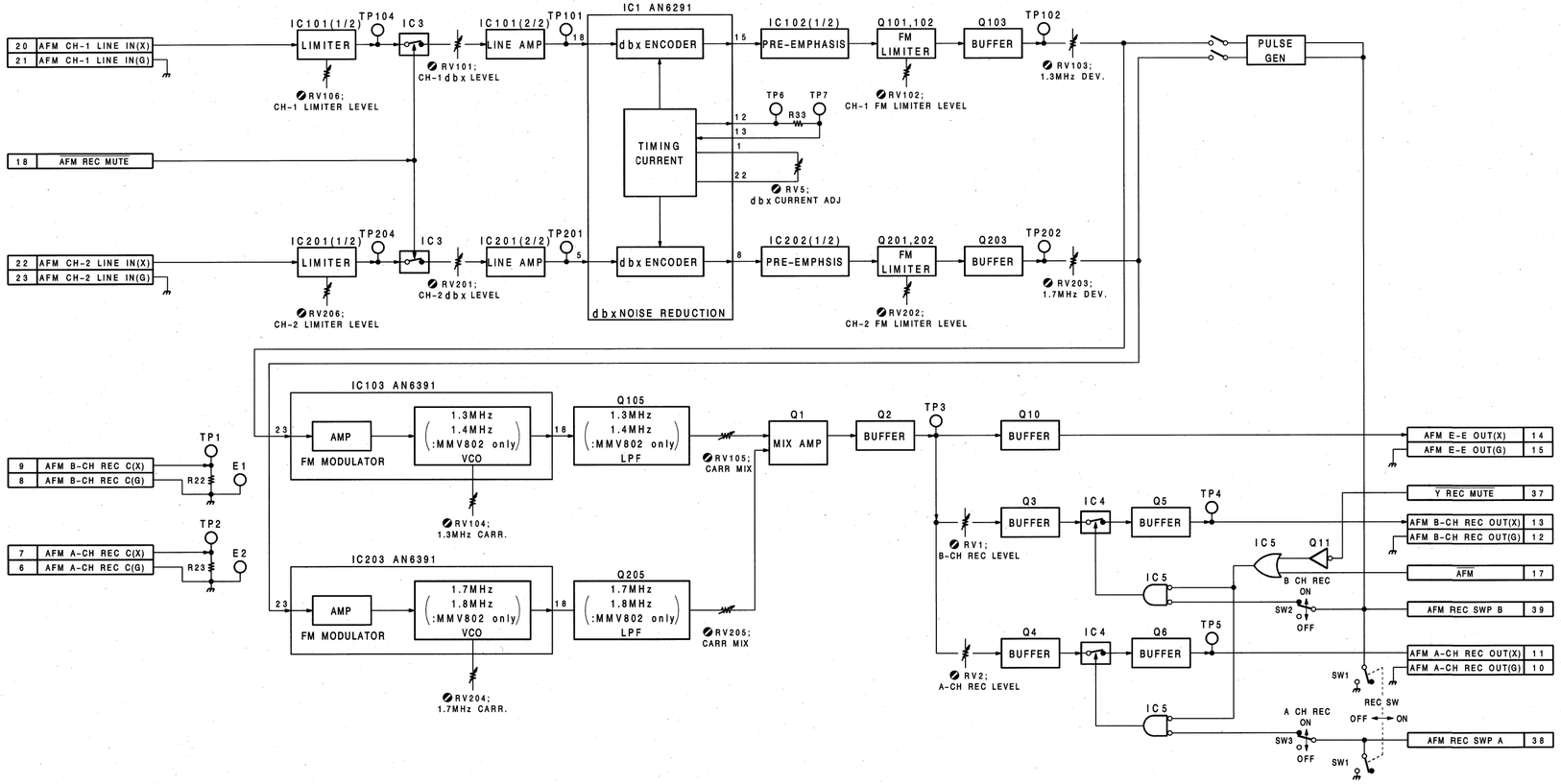
## FM AUDIO SIGNAL SYSTEM BLOCK DIAGRAM




MMV800/810/802
FM AUDIO SIGNAL SYSTEM

AMD AMD

## AMD BOARD BLOCK DIAGRAM




MMV800/810/802

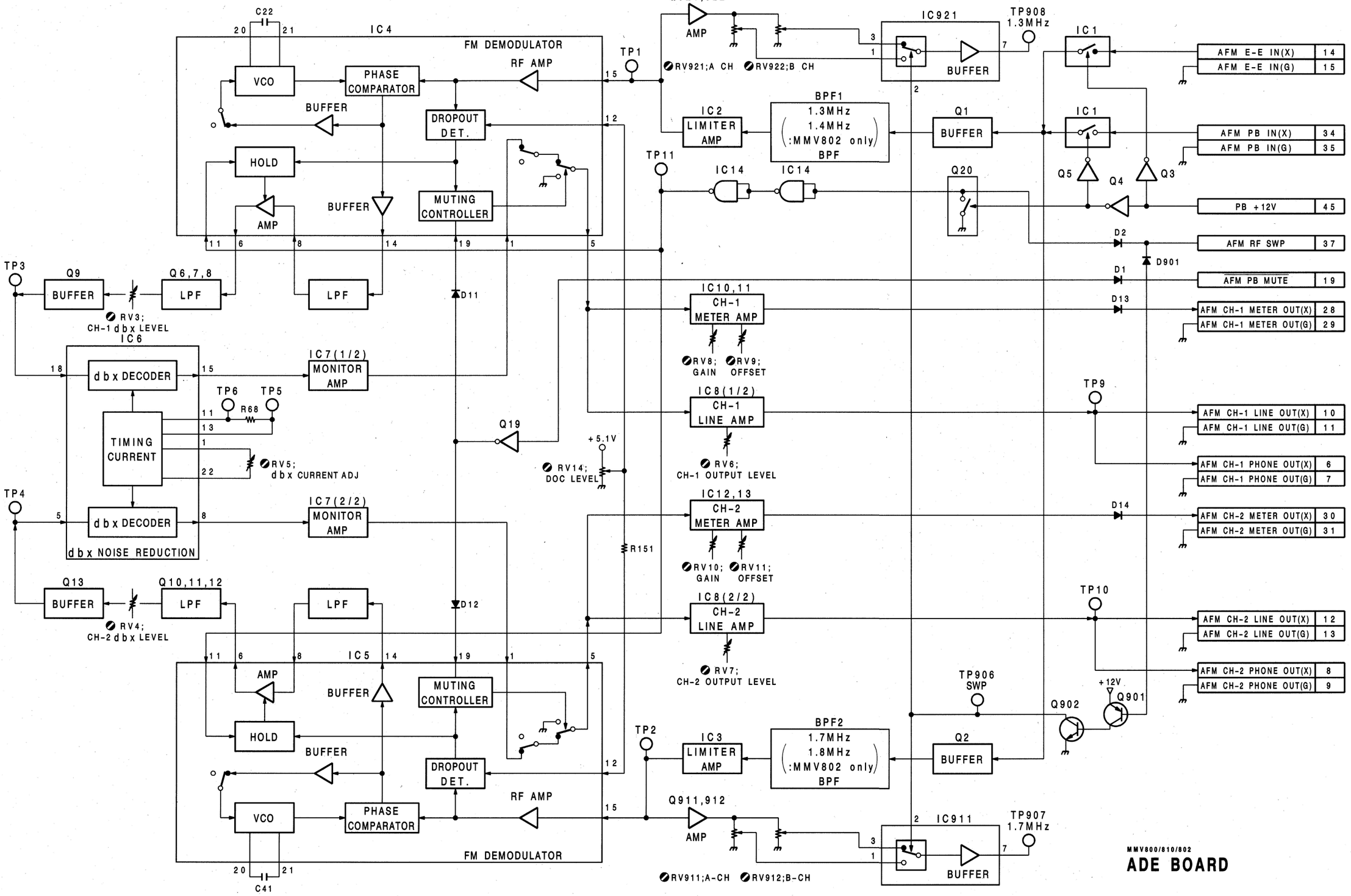
**AMD BOARD**



12-32

12-32

## ADE BOARD BLOCK DIAGRAM



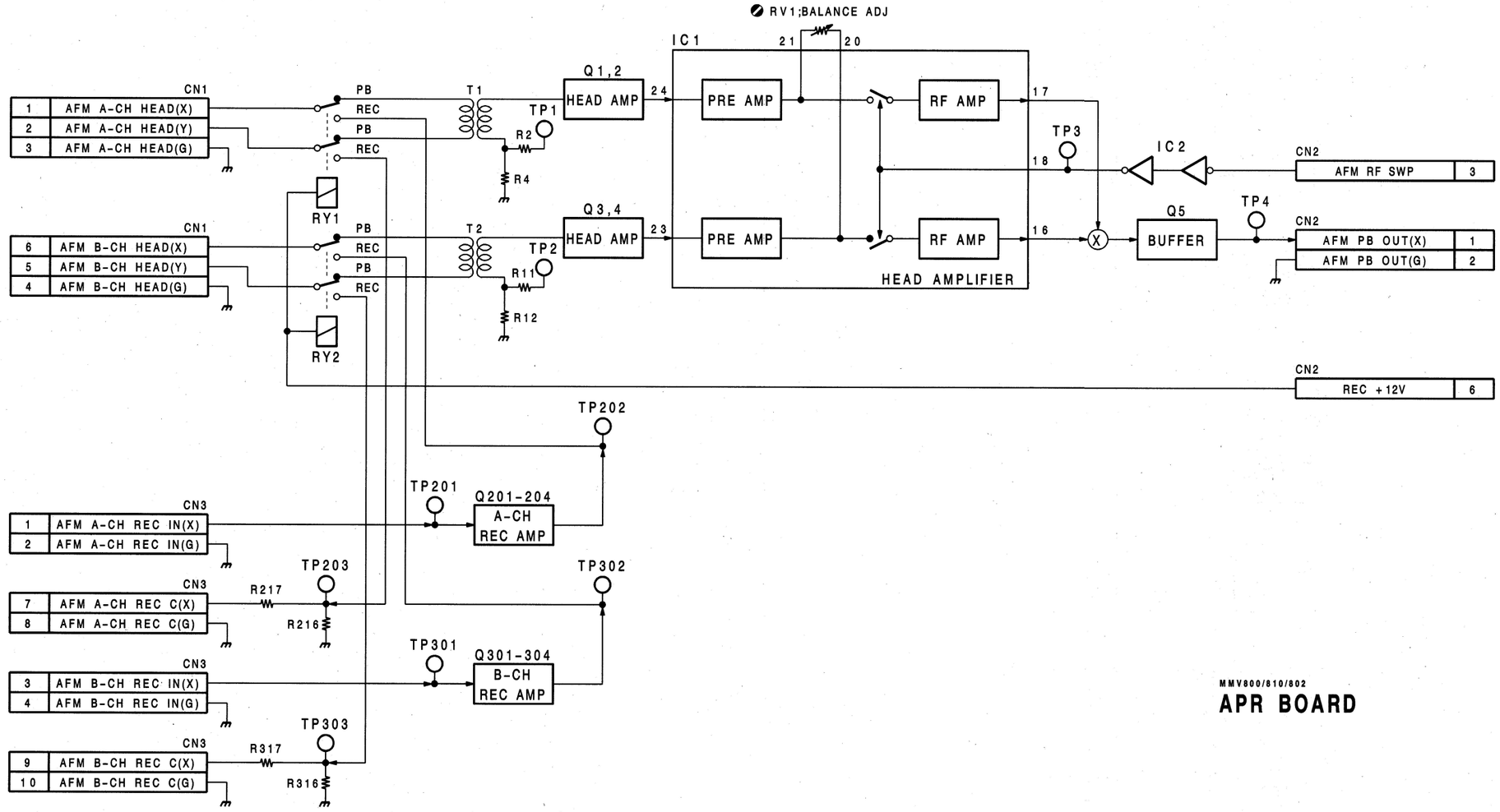

MMV800/810/802

## ADE BOARD



12-33

## APR BOARD BLOCK DIAGRAM

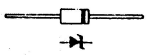




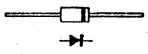



12-34

# SECTION 13
# SEMICONDUCTOR PIN ASSIGNMENT

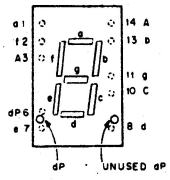


052 ? ?

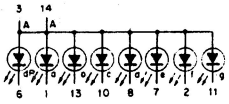


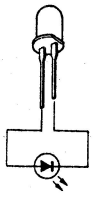
10DF2
1S1585

7-SEGMENT LED
— TOP VIEW —



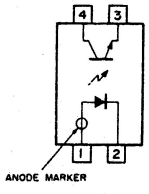

5082-7650 (HP)



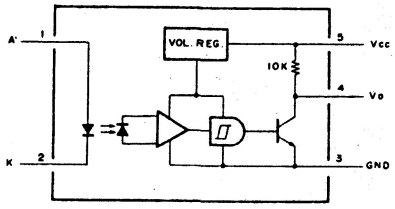
EAA5504S: ORANGE

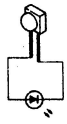
— TOP VIEW —



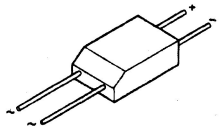

EE-CF1

GPIA07

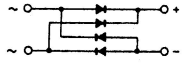


LN25RP : RED
LN35BP : GREEN



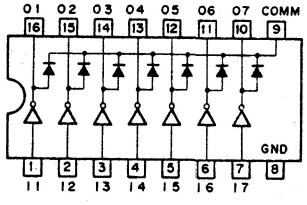
M4E-1

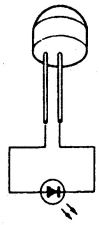


PY5525S : YELLOW

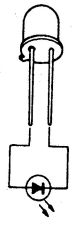
— TOP VIEW —

TD62003P

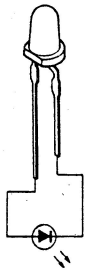


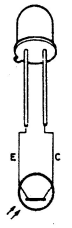
TLG102; GREEN
TLR102 : RED



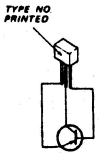
TLN101



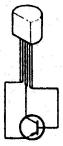
TLUR 163: RED
TLUG 163: GREEN
TLUY 163: YELLOW



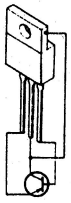

TPS601B



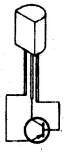

2SA1175



2SA733



2SB596

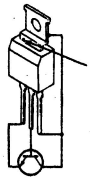


2SB740

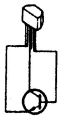
BOTTOM VIEW

2SC1252

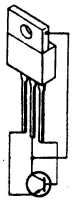
2SC1345
2SC1364



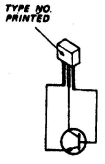

2SC2278



2SC2458

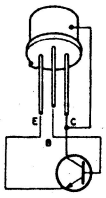


2SC2654

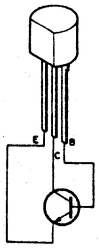



2SC2785

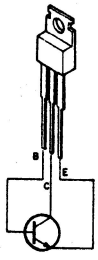
2SC403B
2SC403C



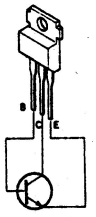

2SC639



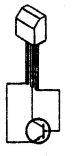

2SC732TM-BL



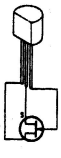

2SD526
2SC2238Y
2SA968Y




2SD560

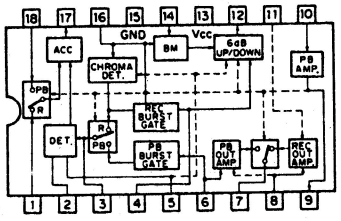


2SD774

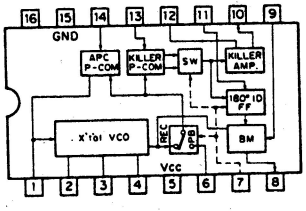


2SK152
2SK43

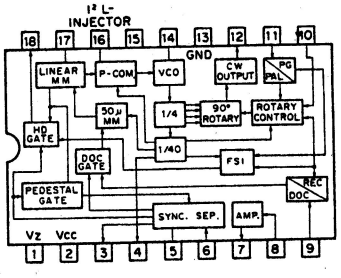
AN6360



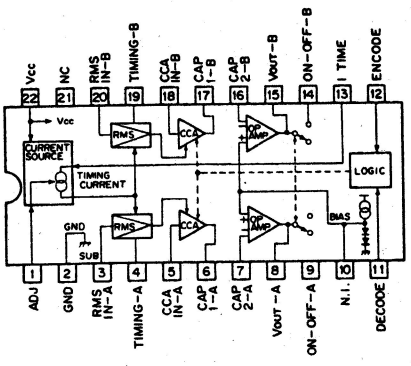

AN6361N



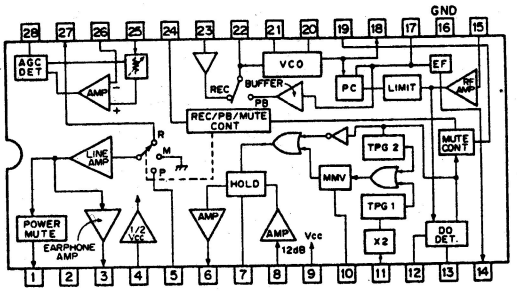

AN6362



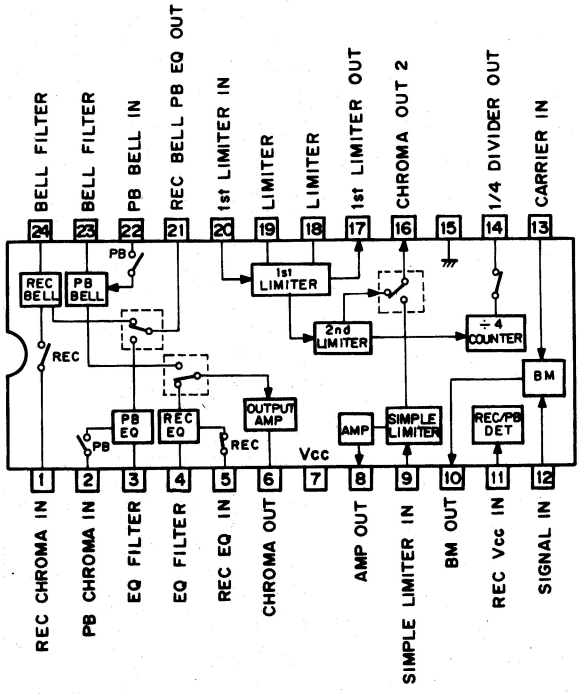

AN6291




AN6391S

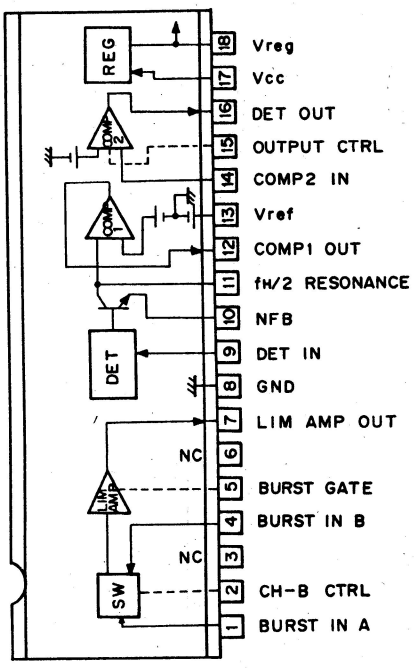



AN6397

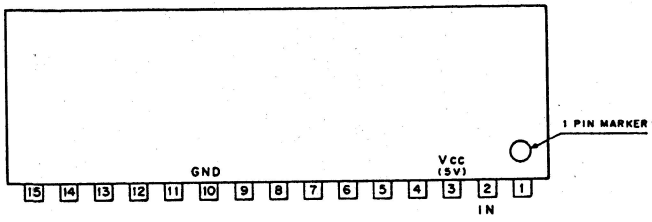


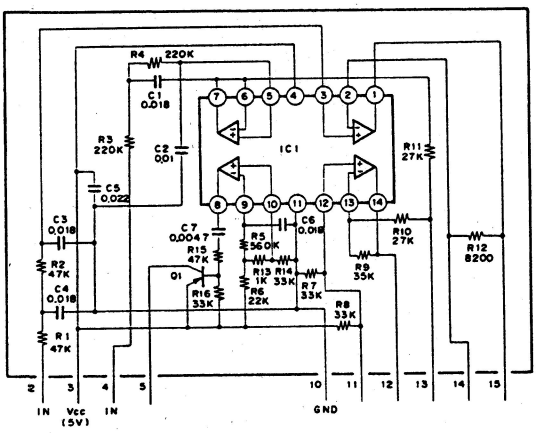
BA7025L

PAL/SECAM DISCRIMINATOR
– SIDE VIEW –




BX-1043
– SIDE VIEW –

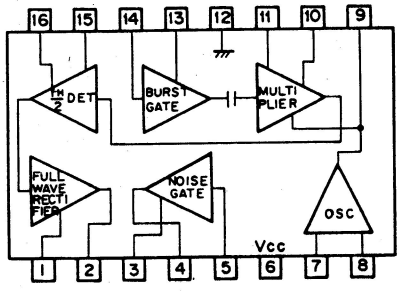


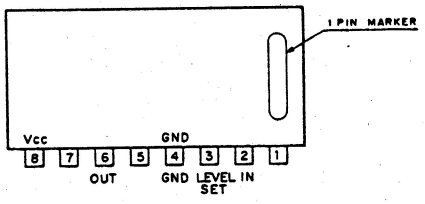

IC1 : μPC324G

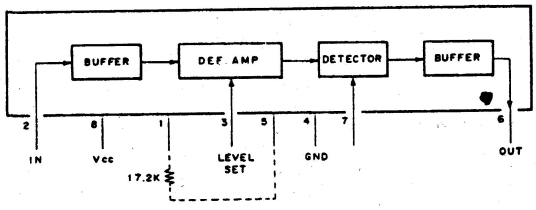
BA7100

SECAM DISCRIMINATOR

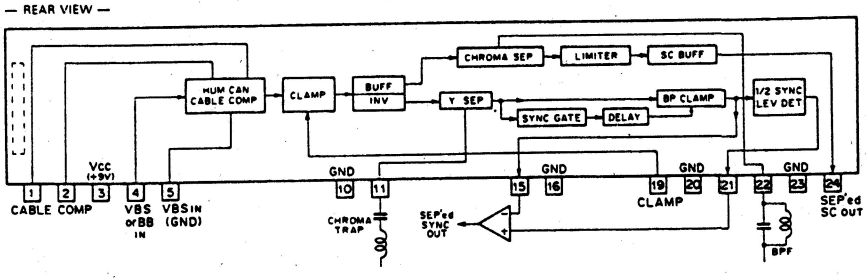



BX-3904
– SIDE VIEW –

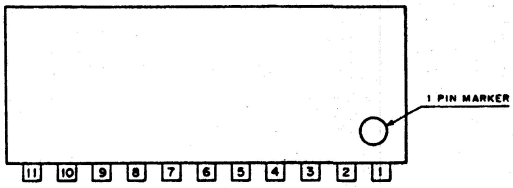


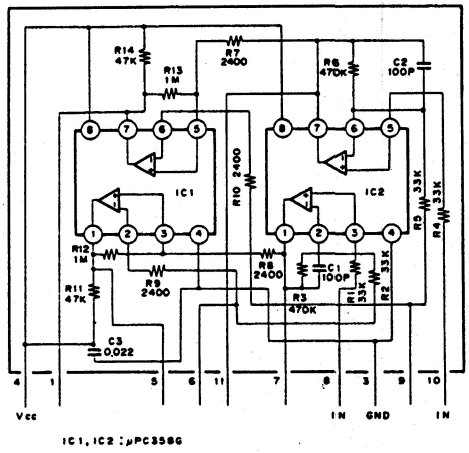




BX1040 (SONY)
SYNC SEPARATOR
– REAR VIEW –



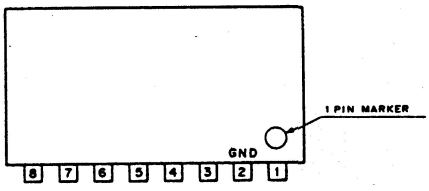
BX-3978
— SIDE VIEW —

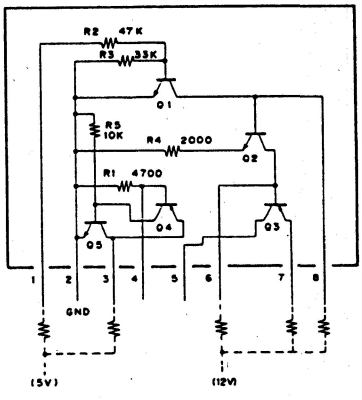


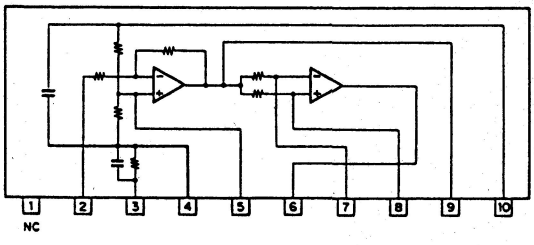

IC1, IC2 : μPC358G

BX-3983
— SIDE VIEW —

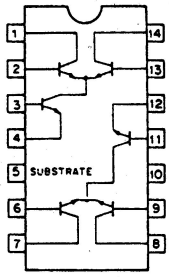



BX3977 (SONY)
PB CTL AMP
— REAR VIEW —



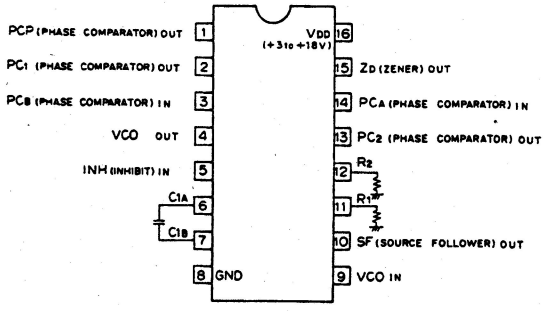

CA3054 (RCA)
DIFFERENTIAL AMPLIFIER
— TOP VIEW —

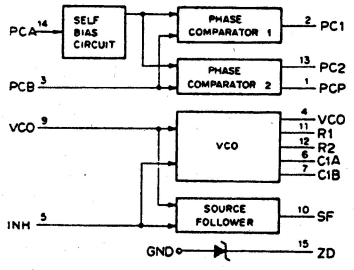



REFERENCE ; LINEAR INTEGRATED CIRCUITS OF RCA

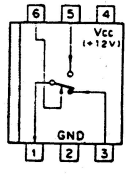
CD4046BE (RCA)

C-MOS PHASE LOCKED LOOP
— TOP VIEW —



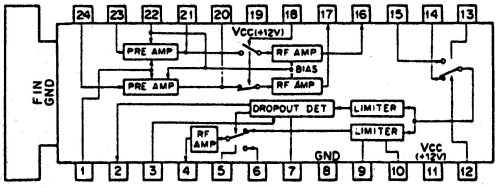




CX20060
ANALOG SWITCH
— TOP VIEW —

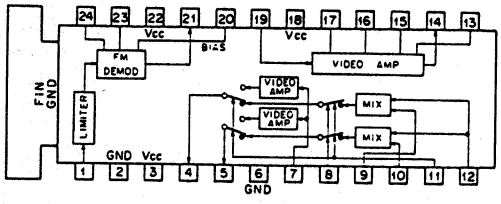



| CONT. INPUT (PIN 6) | SW |
|---|---|
| LOW OR OPEN | |
| HIGH | |

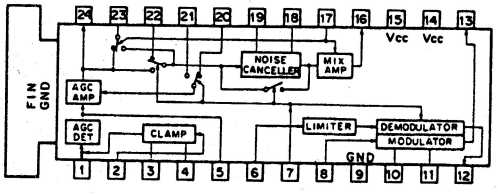
CX134A (SONY)
HEAD AMP/DROPOUT COMPENSATOR
— TOP VIEW —



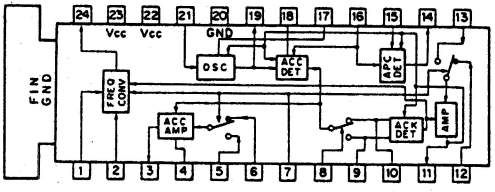

CX135 (SONY)
— TOP VIEW —



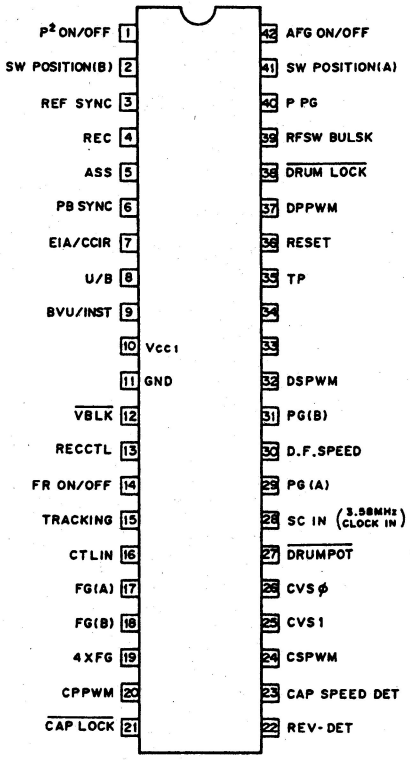

CX187 (SONY)
LUMINANCE SIGNAL PROCESSER
—TOP VIEW—



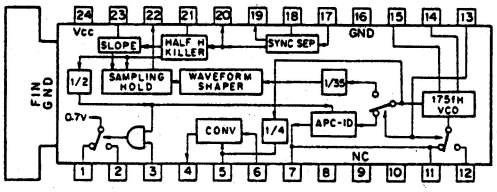

CX188 (SONY)
— TOP VIEW—



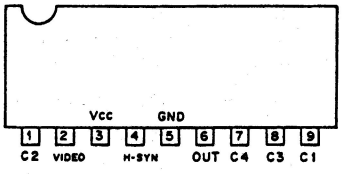

CX-194A/B
— TOP VIEW —




CX196 (SONY)
—TOP VIEW—

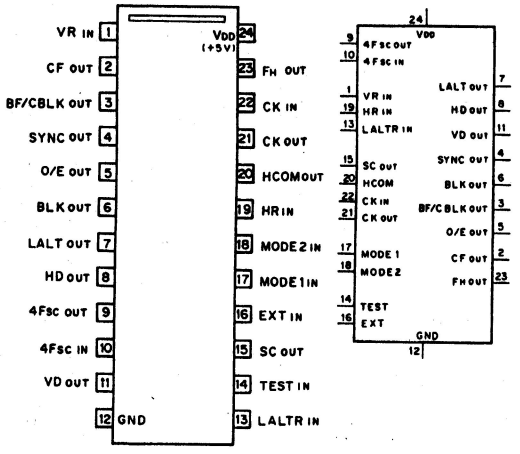



CX-825
— SIDE VIEW —



CX773A (SONY)

C-MOS SYNC GENERATOR (NTSC, PAL-M, PAL, SECAM)
— TOP VIEW —




O/E : ODD/EVEN FIELD
CF : COLOR FRAME PULSE
HCOM : H COMPARATOR

| SYSTEM | 4Fsc | CLOCK |
|---|---|---|
| NTSC | 910 FH | 910FH |
| PAL | 1135FH+2Fv | 908FH |
| PALM | 909FH | 910FH |
| SECAM | —— | 908FH |

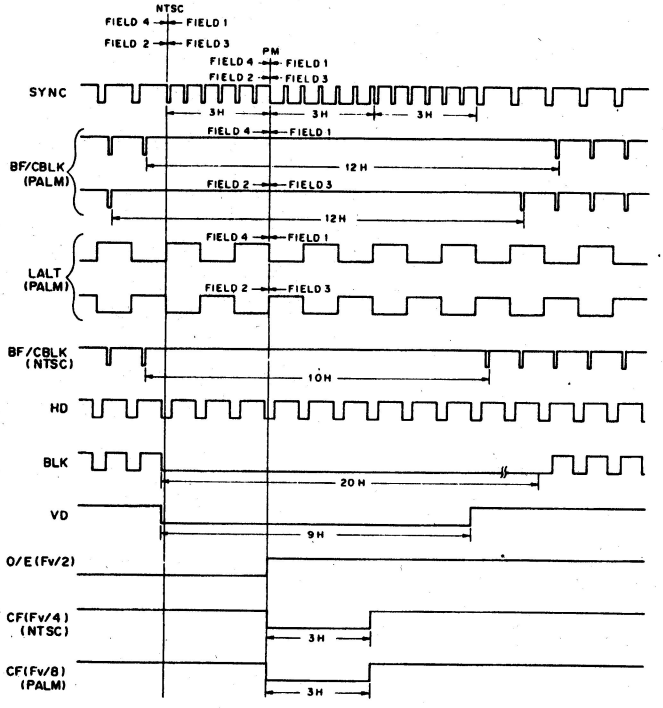
| INPUTS | | SYSTEM |
|---|---|---|
| MODE 1 | MODE 2 | |
| 0 | 0 | NTSC |
| 0 | 1 | SECAM |
| 1 | 0 | PALM |
| 1 | 1 | PAL |

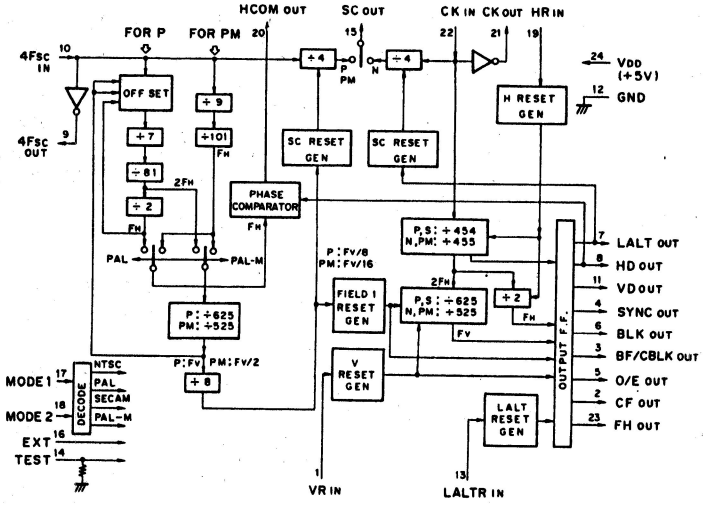
0 ; LOW LEVEL (GND)
1 ; HIGH LEVEL (VDD)

| INPUTS | | FUNCTION |
|---|---|---|
| EXT | TEST | |
| 0 | 0 | INTERNAL |
| 0 | 1 | INVALID |
| 1 | 0 | EXT |
| 1 | 1 | TEST |

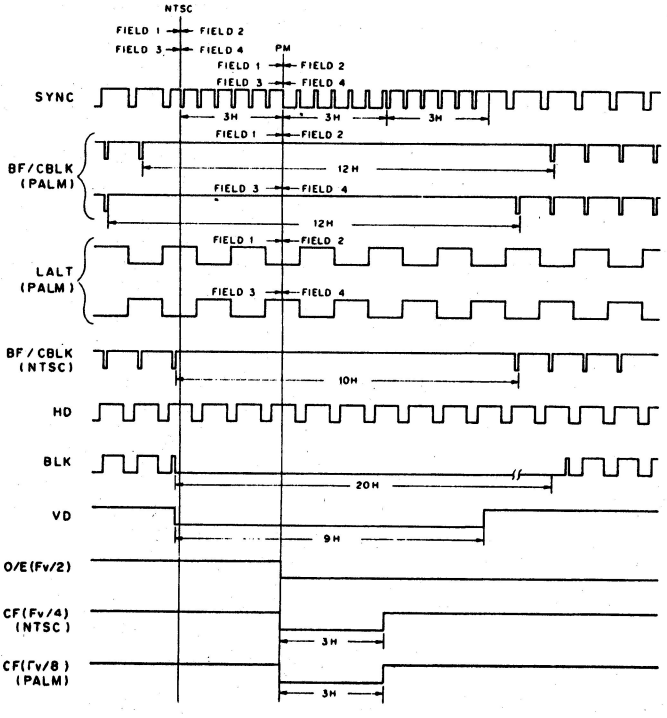
TEST "0": OPEN (INTERNALLY PULLED DOWN)

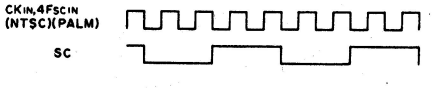
NTSC, PAL-M (FIELD 1,3)



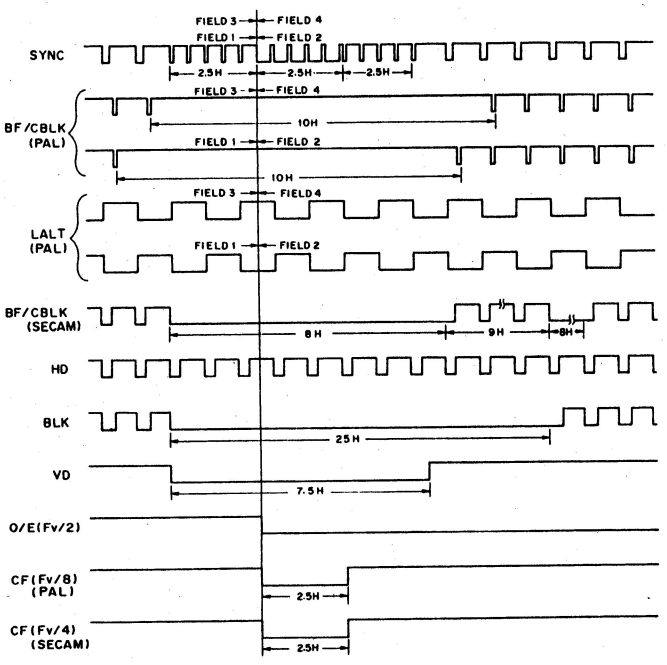




NTSC, PAL-M (FIELD 2, 4)

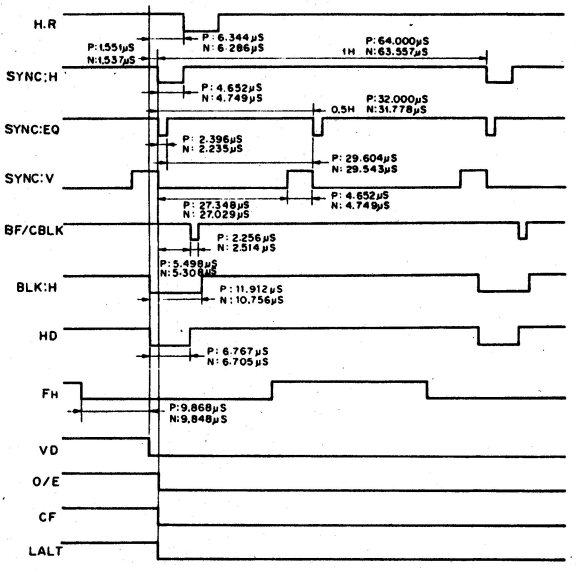


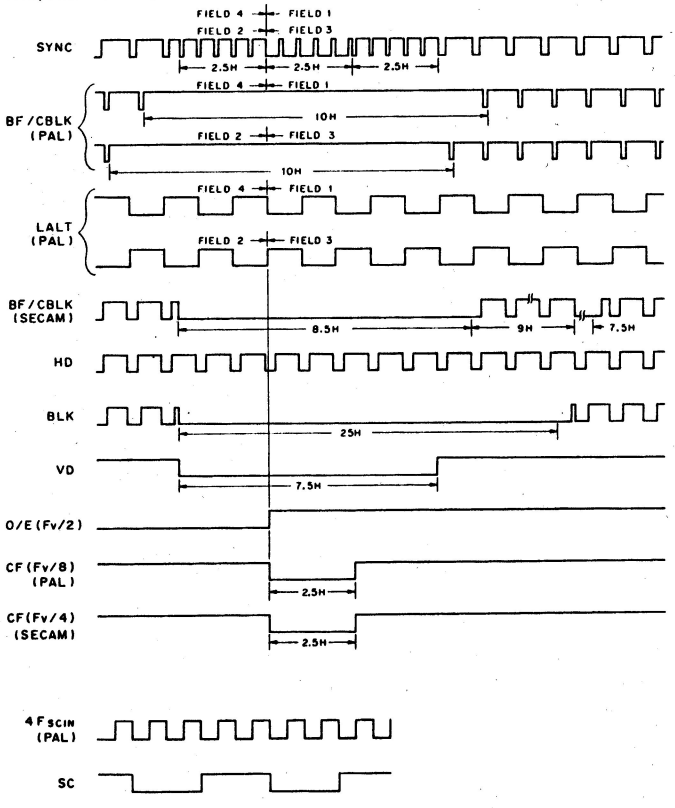
PAL, SECAM (FIELD 4,2)




P:PAL, SECAM
N:NTSC, PALM



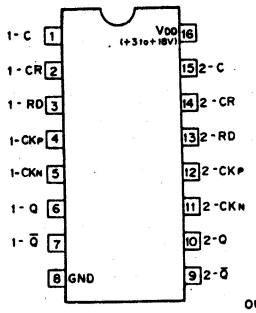

PAL, SECAM (FIELD 1,3)

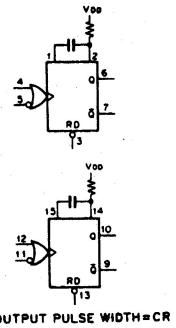


HD14538BP (HITACHI)

C-MOS DUAL RETRIGGERABLE/NON-RETRIGGERABLE MONOSTABLE MULTIVIBRATOR

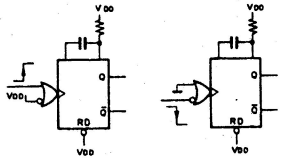
— TOP VIEW —



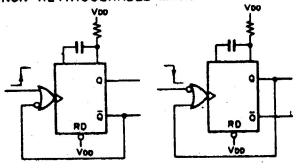




OUTPUT PULSE WIDTH=CR

RETRIGGERABLE M.M.V



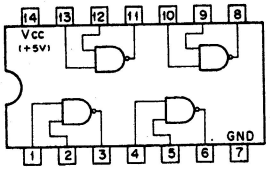

NON-RETRIGGERABLE M.M.V

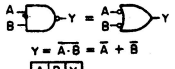



HD7400P

TTL 2-INPUT POSITIVE-NAND GATE

— TOP VIEW —



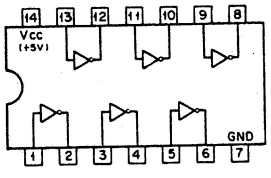

| A | B | Y |
|---|---|---|
| 0 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

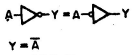
0;LOW LEVEL
1;HIGH LEVEL

HD7404P

TTL INVERTER

— TOP VIEW —




Y = Ā

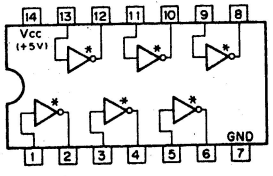
| A | Y |
|---|---|
| 0 | 1 |
| 1 | 0 |

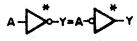
0;LOW LEVEL
1;HIGH LEVEL

HD7406P

TTL INVERTER BUFFER/DRIVER WITH OPEN-COLLECTOR

— TOP VIEW —




Y = Ā

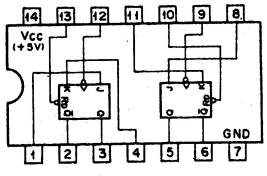
| A | Y |
|---|---|
| 0 | 1 |
| 1 | 0 |

0;LOW LEVEL
1;HIGH LEVEL
*;OPEN COLLECTOR

HD74107P

TTL J-K FLIP FLOP WITH DIRECT RESET

— TOP VIEW —

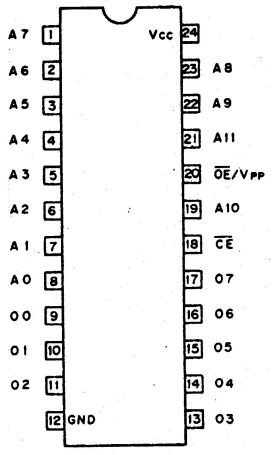


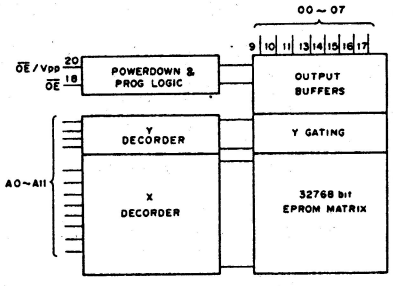

| INPUTS | | | | OUT |
|---|---|---|---|---|
| RD | CK | J | K | Qn+1 |
| 0 | X | X | X | 0 |
| 1 | ↓ | 0 | 0 | Qn |
| 1 | ↓ | 0 | 1 | 0 |
| 1 | ↓ | 1 | 0 | 1 |
| 1 | ↓ | 1 | 1 | Q̄n |
| 1 | 1 | X | X | Qn |

0;LOW LEVEL
1;HIGH LEVEL
X;DON'T CARE

HM462732

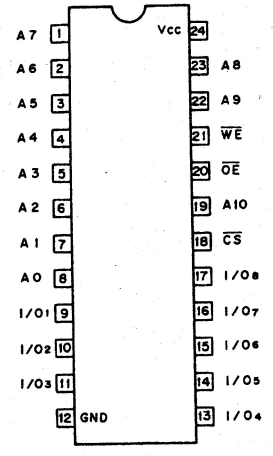
— TOP VIEW —

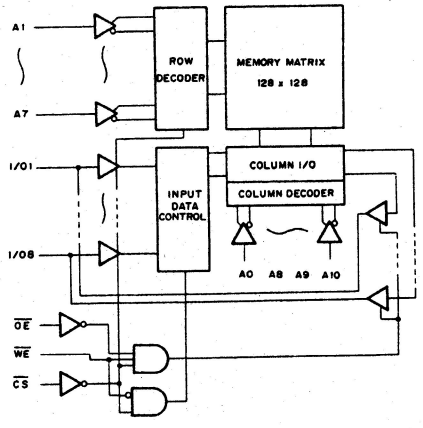


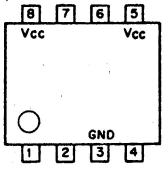

HM6116LP-2

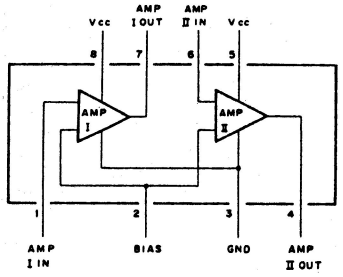
— TOP VIEW —



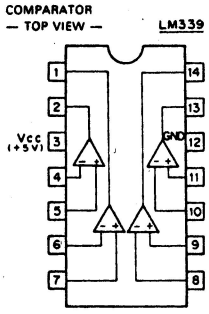



LA1222
— TOP VIEW —

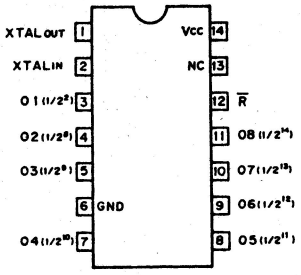


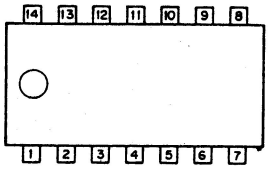

LM339 (NSC)
COMPARATOR
— TOP VIEW —

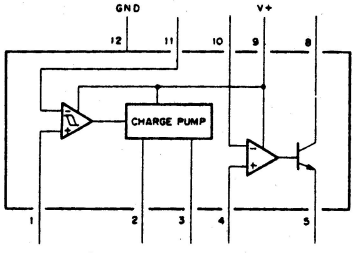



M54816P
— TOP VIEW —

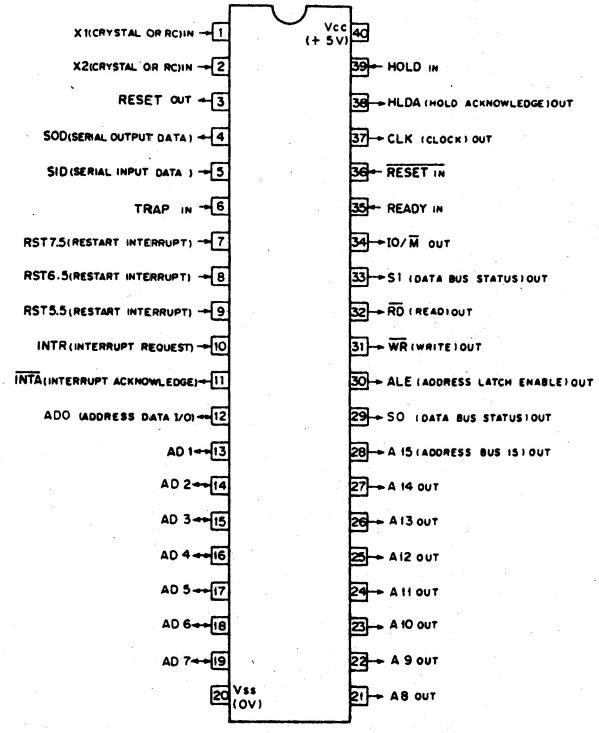


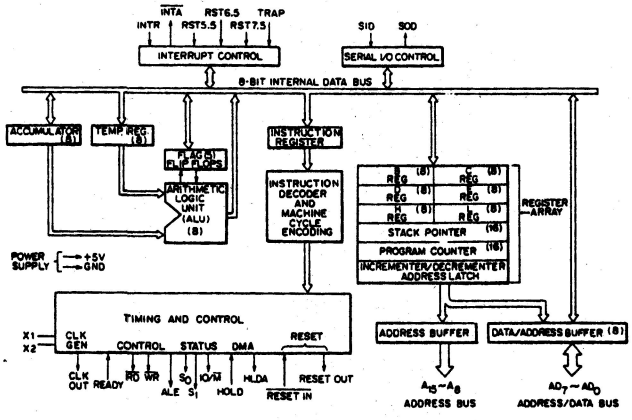

LM2907
— TOP VIEW —



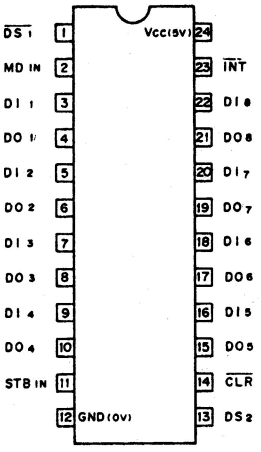



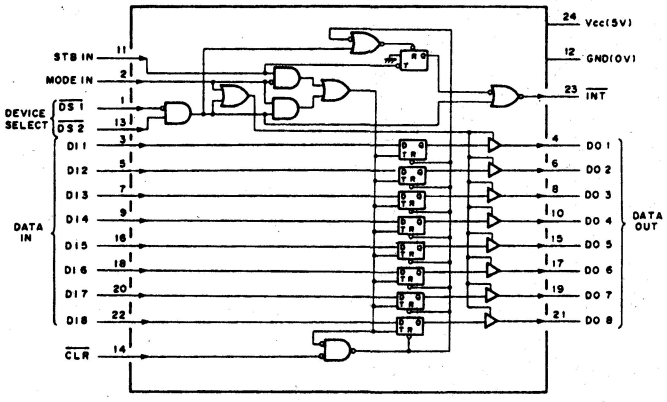

M5L8085AP
SINGLE CHIP 8-BIT N-CHANNEL MICROPROCESSOR
— TOP VIEW —



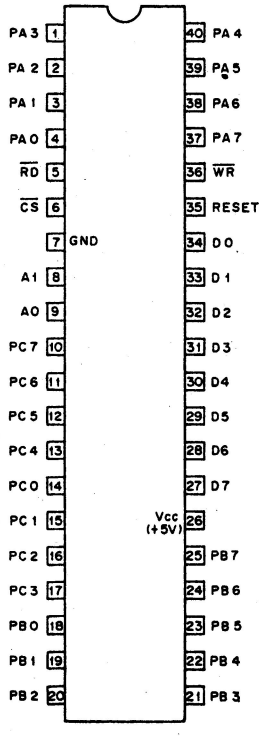



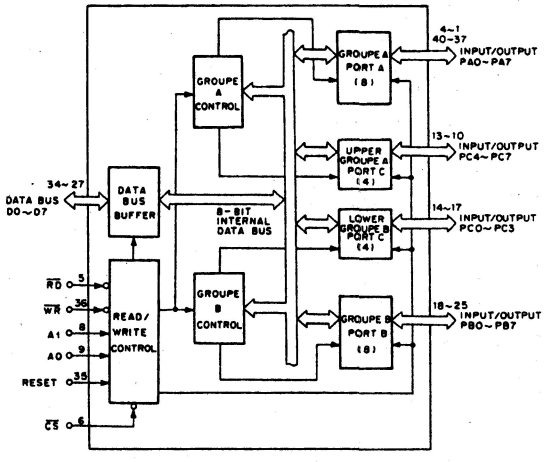
M5L8212P
8-BIT INPUT/OUTPUT PORT
— TOP VIEW —



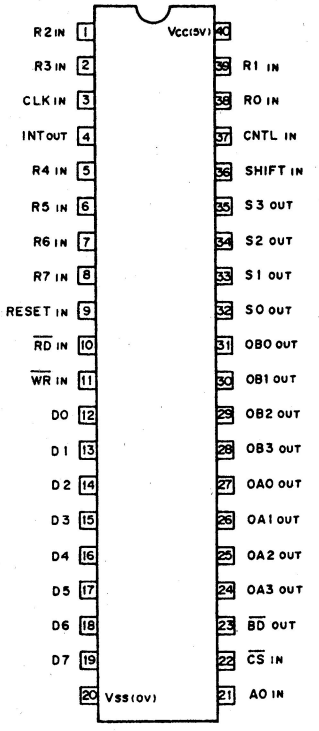



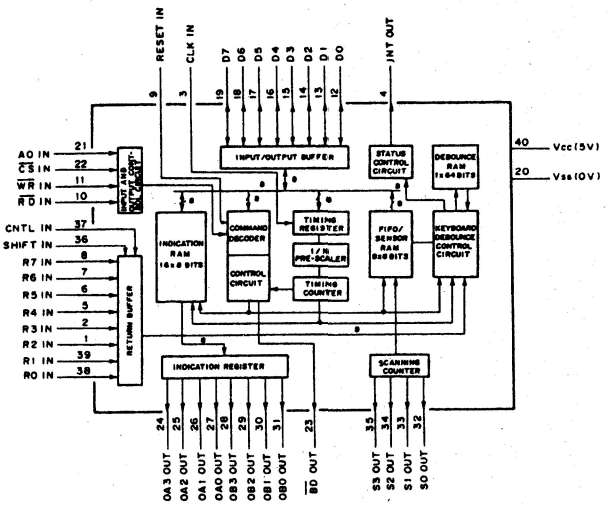

M5L8255AP-5
PROGRAMMABLE PERIPHERAL INTERFACE
— TOP VIEW —



M5L8279P-5
PROGRAMMABLE KEYBOARD/DISPLAY INTERFACE
— TOP VIEW —

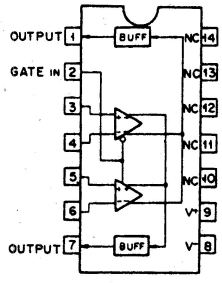


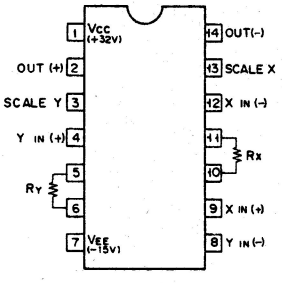

| | |
|---|---|
| AO IN | ; COMMAND/DATA CONT. INPUT |
| $\overline{CS}$ IN | ; CHIP SELECT INPUT |
| $\overline{WR}$ IN | ; WRITING CONT INPUT |
| $\overline{RD}$ IN | ; READING CONT INPUT |
| CNTI IN | ; CONT. INPUT |
| RO~R7 IN | ; RETURN LINE INPUT |
| OA0~OA3 OUT | ; INDICATING A OUTPUT |
| OB0~OB3 OUT | ; INDICATING B OUTPUT |
| BD OUT | ; INDICATING BLANKING OUTPUT |
| SO~S3 OUT | ; SCANNING OUTPUT |
| INT OUT | ; INTERRUPTION REQUIRING OUTPUT |
| DO~D7 | ; BIDIRECTIONAL DATA BUS |
| CLK IN | ; CLOCK INPUT |

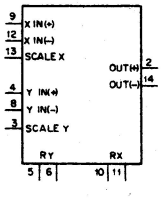
MC1445L (MOTOROLA)
GATE CONTROLLED WIDEBAND AMPLIFIER

VIDEO SWITCH
AGC
MULTIPLEXER
AMPLITUDE MODULATOR
BALANCED MODULATOR
PULSE-WIDTH MODULATOR
ANALOG SWITCH
—TOP VIEW—

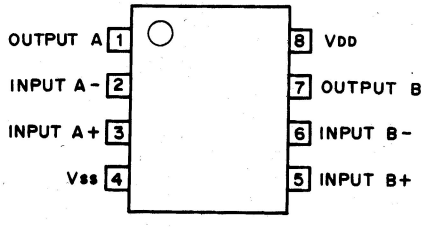


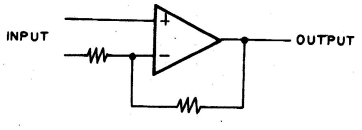

MC1595L (MOTOROLA)
LINEAR MULTIPLIER
— TOP VIEW —



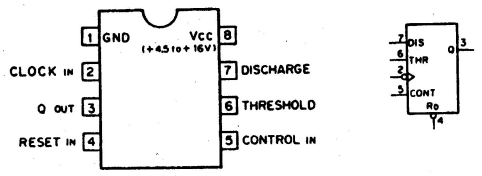

MC14576AP (MOTROLA)
C-MOS DUAL VIDEO AMPLIFIER
— TOP VIEW —



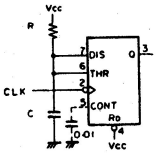



## NE555N (SIGNETICS)

PRECISION TIMER
— TOP VIEW —

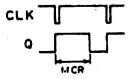



### MONOSTABLE MULTIVIBRATOR

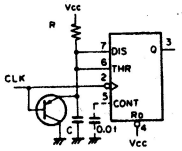



| INPUTS | | OUT |
|---|---|---|
| Rd | CLK | Q |
| 0 | X | 0 |
| 1 | ⎍ | ⎍ |

0 , LOW LEVEL
1 , HIGH LEVEL
X , DON'T CARE

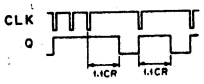



### RETRIGGERABLE MONO. MULTIVIBRATOR (MISSING PULSE DETECTOR)

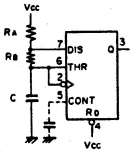



| INPUTS | | OUT |
|---|---|---|
| Rd | CLK | Q |
| 0 | X | 0 |
| 1 | ⎍ | ⎍ |

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

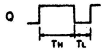



### ASTABLE MULTIVIBRATOR



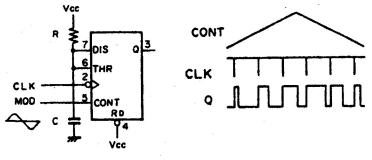

| Rd | Q |
|---|---|
| 0 | 0 |
| 1 | ⎍ |

0 ; LOW LEVEL
1 ; HIGH LEVEL

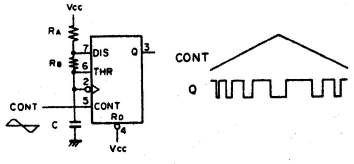



$T_H = 0.693C\,(R_A + R_B)$
$T_L = 0.693C\,R_B$

### PULSE WIDTH MODULATOR

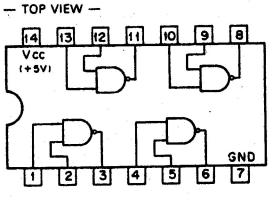


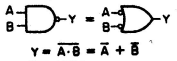

### VCO (PULSE POSITION MODULATOR)




## SN74LS00N (TI)

TTL 2-INPUT POSITIVE-NAND GATE
— TOP VIEW —



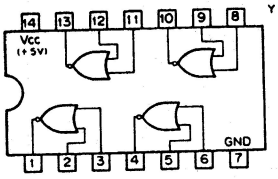



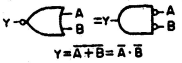

| A | B | Y |
|---|---|---|
| 0 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

0; LOW LEVEL
1; HIGH LEVEL

## SN74LS02N (TI)

TTL 2-INPUT POSITIVE-NOR GATE
— TOP VIEW —



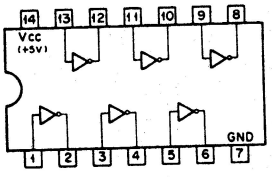



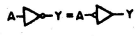

| A | B | Y |
|---|---|---|
| 0 | 0 | 1 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 0 |

0: LOW LEVEL
1; HIGH LEVEL

## SN74LS04N (TI)

TTL INVERTER
— TOP VIEW —



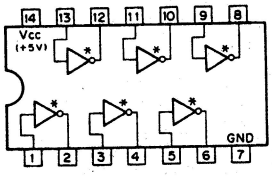



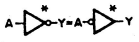

| A | Y |
|---|---|
| 0 | 1 |
| 1 | 0 |

0: LOW LEVEL
1; HIGH LEVEL

## SN7406
## HD7406P (HITACHI)

TTL INVERTER BUFFER/DRIVER WITH OPEN-COLLECTOR
— TOP VIEW —



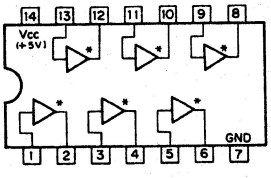




| A | Y |
|---|---|
| 0 | 1 |
| 1 | 0 |

0; LOW LEVEL
1; HIGH LEVEL
*; OPEN COLLECTOR

## SN7407N (TI)

TTL BUFFER/DRIVER WITH OPEN-COLLECTOR
— TOP VIEW —

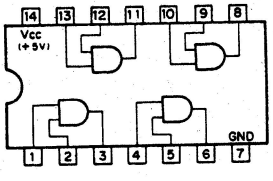


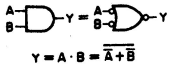
| A | Y |
|---|---|
| 0 | 0 |
| 1 | 1 |

0 ; LOW LEVEL
1 ; HIGH LEVEL
* ; OPEN COLLECTOR

## SN74LS08

TTL 2-INPUT POSITIVE-AND GATE
— TOP VIEW —



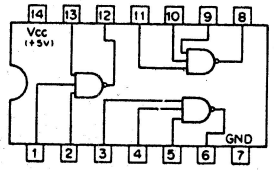



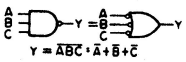

| A | B | Y |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

0; LOW LEVEL
1; HIGH LEVEL

### SN74LS10N (TI)

TTL 3-INPUT POSITIVE NAND GATE
— TOP VIEW —



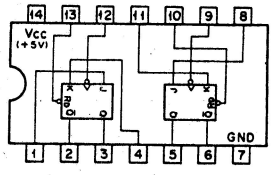




| A | B | C | Y |
|---|---|---|---|
| 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 |

0 : LOW LEVEL
1 : HIGH LEVEL

### SN74LS107

TTL J-K FLIP FLOP WITH DIRECT RESET
— TOP VIEW —

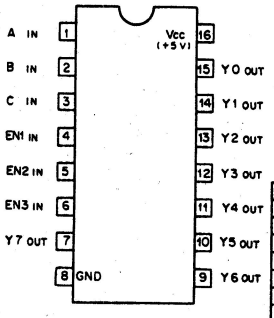


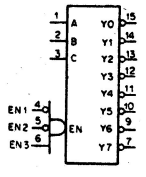

| INPUTS | | | | OUT |
|---|---|---|---|---|
| Rd | CK | J | K | Qn+1 |
| 0 | X | X | X | 0 |
| 1 | ↓ | 0 | 0 | Qn |
| 1 | ↓ | 0 | 1 | 0 |
| 1 | ↓ | 1 | 0 | 1 |
| 1 | ↓ | 1 | 1 | $\overline{Qn}$ |
| 1 | 1 | X | X | Qn |

0;LOW LEVEL
1;HIGH LEVEL
X;DON'T CARE

### SN74LS138N (TI)

TTL 3-TO-8-LINE DECODER/DEMULTIPLEXER
— TOP VIEW —



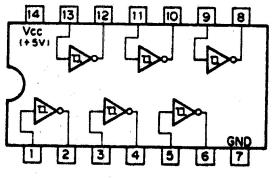

| INPUTS | | | | OUTPUTS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EN | C | B | A | Y7 | Y6 | Y5 | Y4 | Y3 | Y2 | Y1 | Y0 |
| 0 | X | X | X | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

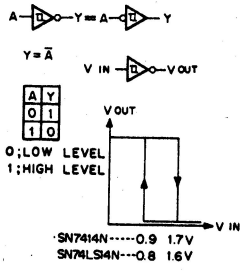
EN = $\overline{EN1}$·EN2·EN3

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

### SN7414N (TI)
### SN74LS14N (TI)

TTL SCHMITT TRIGGER INVERTER
— TOP VIEW —



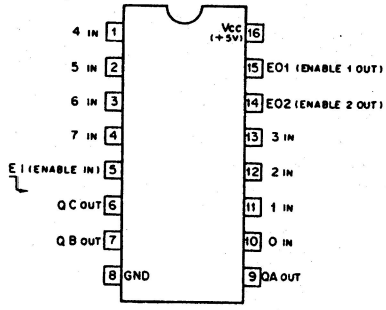



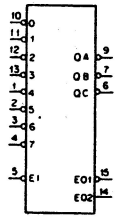

| A | Y |
|---|---|
| 0 | 1 |
| 1 | 0 |

0;LOW LEVEL
1;HIGH LEVEL

### SN74LS148N (TI)

TTL 8-TO-3-LINE PRIORITY ENCODER
— TOP VIEW —



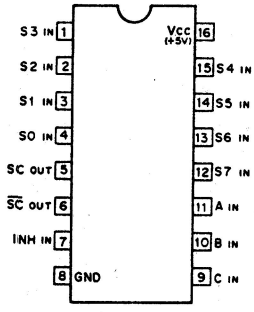



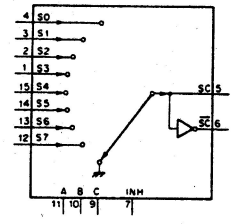

| INPUTS | | | | | | | | | OUTPUTS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EI | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | QC | QB | QA | EO1 | EO2 |
| 1 | X | X | X | X | X | X | X | X | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | X | 1 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 | X | X | 1 | 0 | 1 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 0 | X | X | X | 1 | 0 | 0 | 1 | 0 |
| 0 | 1 | 1 | 1 | 0 | X | X | X | X | 0 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 0 | X | X | X | X | X | 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 0 | X | X | X | X | X | X | 0 | 0 | 1 | 1 | 0 |
| 0 | 0 | X | X | X | X | X | X | X | 0 | 0 | 0 | 1 | 0 |

0;LOW LEVEL 1;HIGH LEVEL X;DON'T CARE

### SN74LS151N (TI)

TTL 8-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER
— TOP VIEW —



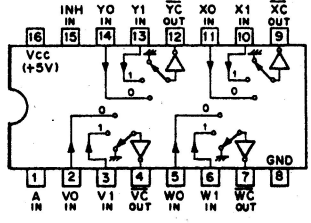



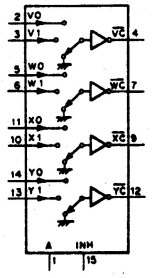

| CONTROL INPUTS | | | | ON CHANNEL |
|---|---|---|---|---|
| INH | C | B | A | |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 1 | 0 | 2 |
| 0 | 0 | 1 | 1 | 3 |
| 0 | 1 | 0 | 0 | 4 |
| 0 | 1 | 0 | 1 | 5 |
| 0 | 1 | 1 | 0 | 6 |
| 0 | 1 | 1 | 1 | 7 |
| 1 | X | X | X | GND |

0;LOW LEVEL
1;HIGH LEVEL
X;DON'T CARE

### SN74LS158N (TI)

TTL 2-LINE-TO-1-LINE INVERTED DATA SELECTOR/MULTIPLEXER
— TOP VIEW —



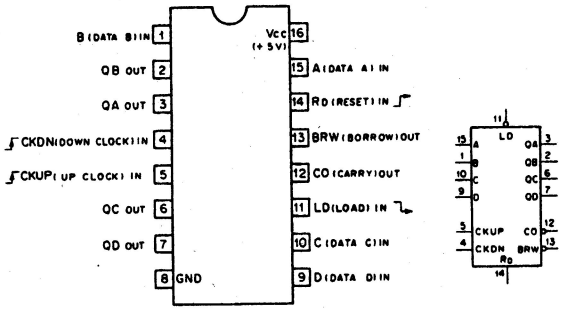

| CONT. IN | | ON CHANNEL |
|---|---|---|
| INH | A | |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | X | GND |

0;LOW LEVEL
1;HIGH LEVEL
X;DON'T CARE

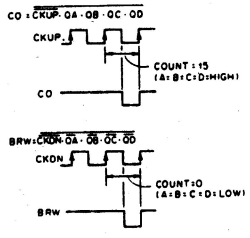
SN74LS193N (TI)

TTL PRESETTABLE SYNCHRONOUS 4-BIT UP/DOWN COUNTER

— TOP VIEW —




| CONTROL INPUTS | | | | MODE |
|---|---|---|---|---|
| RD | LD | CKUP | CKDN | |
| 1 | X | X | X | RESET TO ZERO |
| 0 | 0 | X | X | PRESET |
| 0 | 1 | ↑ | 1 | UP COUNT |
| 0 | 1 | 1 | ↑ | DOWN COUNT |
| 0 | 1 | 1 | 1 | NO COUNT |




| COUNT | OUTPUTS | | | |
|---|---|---|---|---|
| | QD | QC | QB | QA |
| 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 1 |
| 2 | 0 | 0 | 1 | 0 |
| 3 | 0 | 0 | 1 | 1 |
| 4 | 0 | 1 | 0 | 0 |
| 5 | 0 | 1 | 0 | 1 |
| 6 | 0 | 1 | 1 | 0 |
| 7 | 0 | 1 | 1 | 1 |
| 8 | 1 | 0 | 0 | 0 |
| 9 | 1 | 0 | 0 | 1 |
| 10 | 1 | 0 | 1 | 0 |
| 11 | 1 | 0 | 1 | 1 |
| 12 | 1 | 1 | 0 | 0 |
| 13 | 1 | 1 | 0 | 1 |
| 14 | 1 | 1 | 1 | 0 |
| 15 | 1 | 1 | 1 | 1 |

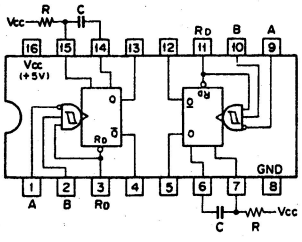
UP COUNT / DOWN COUNT

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

SN74LS221N (TI)

TTL MONOSTABLE MULTIVIBRATOR WITH SCHMITT TRIGGER INPUT

— TOP VIEW —




| INPUTS | | | OUTPUTS | |
|---|---|---|---|---|
| RD | A | B | Q | $\bar{Q}$ |
| 0 | X | X | 0 | 1 |
| X | 1 | X | 0 | 1 |
| X | X | 0 | 0 | 1 |
| 1 | 0 | ↓ | ⊓ | ⊔ |
| 1 | ↓ | 1 | ⊓ | ⊔ |
| ↑ | 0 | 1 | ⊓ | ⊔ |

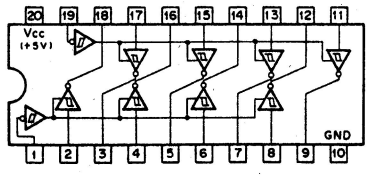
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

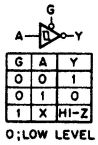
OUTPUT PULSE WIDTH = 0.7CR

SN74LS240N (TI)

TTL 3-STATE SCHMITT TRIGGER INVERTER/LINE DRIVER

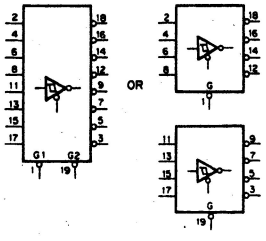
— TOP VIEW —




| G | A | Y |
|---|---|---|
| 0 | 0 | 1 |
| 0 | 1 | 0 |
| 1 | X | HI-Z |

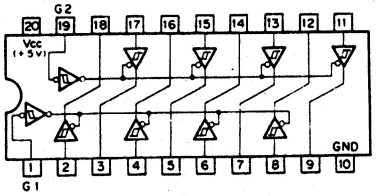
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI-Z; HIGH IMPEDANCE




SN74LS244N (TI)

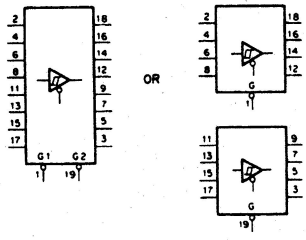
TTL 3-STATE SCHMITT TRIGGER BUFFER/DRIVER

— TOP VIEW —



| G | A | Y |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | X | HI-Z |

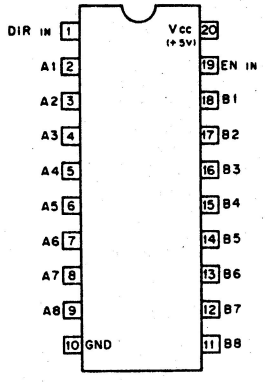
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI-Z; HIGH IMPEDANCE




SN74LS245N (TI)

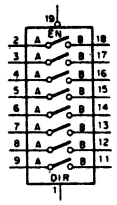
TTL BILATERAL SCHMITT TRIGGER BUS TRANSCEIVERS WITH 3-STATE OUTPUT

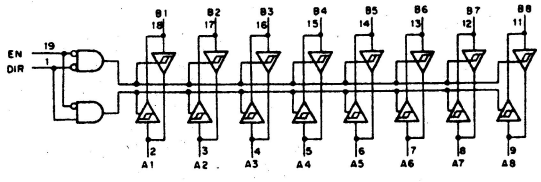
— TOP VIEW —




| EN | DIR | OPERATION |
|---|---|---|
| 0 | 0 | B to A |
| 0 | 1 | A to B |
| 1 | X | HI-Z |

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.
HI-Z, HIGH IMPEDANCE

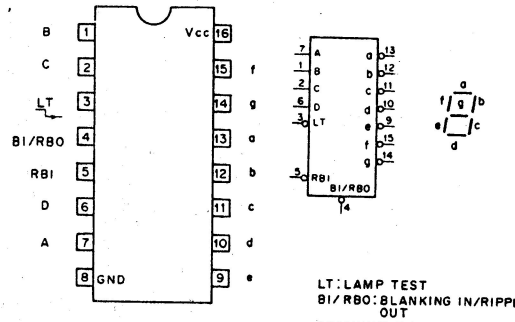


## SN74247

TTL BCD-TO-SEVEN-SEGMENT DECODER/DRIVER
(OPEN COLLECTOR OUTPUT)

—TOP VIEW—









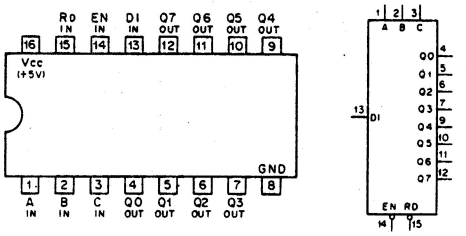

LT: LAMP TEST
BI/RBO: BLANKING IN/RIPPLE BLANKING OUT
RBI: RIPPLE BLANKING IN

| INPUTS | | | | | | BI/RBO | OUTPUTS | | | | | | | DISPLAY | DECIMAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LT | RBI | D | C | B | A | | a | b | c | d | e | f | g | (HEXADECIMAL) | |
| 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 1 | X | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | X | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 2 |
| 1 | X | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 3 |
| 1 | X | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | 4 |
| 1 | X | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 5 | 5 |
| 1 | X | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| 1 | X | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 7 | 7 |
| 1 | X | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 |
| 1 | X | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 9 |
| 1 | X | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | C | 10 |
| 1 | X | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | J | 11 |
| 1 | X | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | H | 12 |
| 1 | X | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | E | 13 |
| 1 | X | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | E | 14 |
| 1 | X | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | BLANK | 15 |
| X | X | X | X | X | X | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | BLANK | 15 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | BLANK | 15 |
| 0 | X | X | X | X | X | 1 | *0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 |
| 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | BLANK | 15 |

* When RBI and inputs A, B, C, and D are at a low "0" level with the LT input high "H", all segment outputs go off ("1") and the RBO goes to a low "0" level (response condition).

## SN74LS259N (TI)

TTL 8-BIT ADDRESSABLE LATCHES
— TOP VIEW —







MODE SELECTION

| CONTROL INPUTS | | OUTPUT OF ADDRESSED LATCH | OUTPUT OF EACH OTHER LATCH |
|---|---|---|---|
| Ro | EN | | |
| 1 | 0 | DI | Qno |
| 1 | 1 | Qno | Qno |
| 0 | 0 | DI | 0 |
| 0 | 1 | 0 | 0 |

0: LOW LEVEL
1: HIGH LEVEL

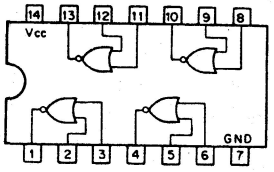
LATCH SELECTION

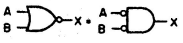
| CONTROL INPUTS | | | LATCH ADDRESSED |
|---|---|---|---|
| C | B | A | |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 |
| 0 | 1 | 0 | 2 |
| 0 | 1 | 1 | 3 |
| 1 | 0 | 0 | 4 |
| 1 | 0 | 1 | 5 |
| 1 | 1 | 0 | 6 |
| 1 | 1 | 1 | 7 |

## SN74LS28N (TI)

TTL 2-INPUT NOR BUFFER

—TOP VIEW—



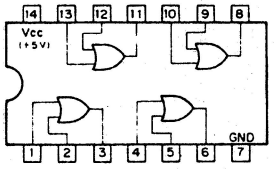



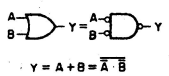

$X = \overline{A+B} = \overline{A} \cdot \overline{B}$

| A | B | X |
|---|---|---|
| 0 | 0 | 1 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 0 |

## SN74LS32N (TI)

TTL 2-INPUT POSITIVE-OR GATE
— TOP VIEW —



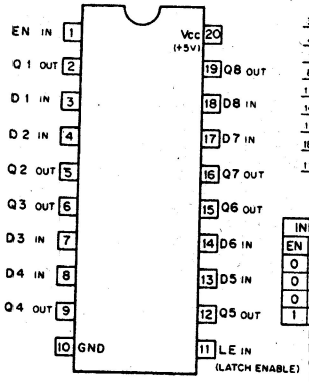

$Y = A+B = \overline{\overline{A} \cdot \overline{B}}$

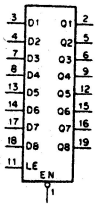
| A | B | Y |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

0: LOW LEVEL
1: HIGH LEVEL

## SN74LS373N (TI)

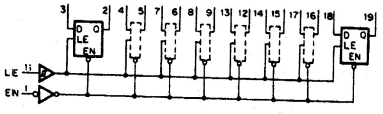
TTL 3-STATE OUTPUTS OCTAL LATCHES
— TOP VIEW —




| INPUTS | | | OUT |
|---|---|---|---|
| EN | D | LE | |
| 0 | 1 | 1 | 1 |
| 0 | 0 | 1 | 0 |
| 0 | X | 0 | Qo |
| 1 | X | X | HI-Z |

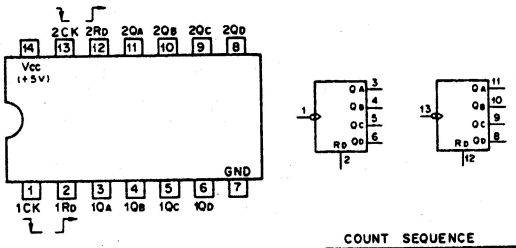
HI-Z; HIGH IMPEDANCE
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE



## SN74LS393N (TI)

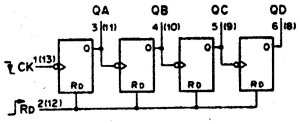
TTL 4-BIT BINARY COUNTER

— TOP VIEW —










COUNT SEQUENCE

| COUNT | QD | QC | QB | QA |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 1 |
| 2 | 0 | 0 | 1 | 0 |
| 3 | 0 | 0 | 1 | 1 |
| 4 | 0 | 1 | 0 | 0 |
| 5 | 0 | 1 | 0 | 1 |
| 6 | 0 | 1 | 1 | 0 |
| 7 | 0 | 1 | 1 | 1 |
| 8 | 1 | 0 | 0 | 0 |
| 9 | 1 | 0 | 0 | 1 |
| 10 | 1 | 0 | 1 | 0 |
| 11 | 1 | 0 | 1 | 1 |
| 12 | 1 | 1 | 0 | 0 |
| 13 | 1 | 1 | 0 | 1 |
| 14 | 1 | 1 | 1 | 0 |
| 15 | 1 | 1 | 1 | 1 |

RESET/COUNT FUNCTION

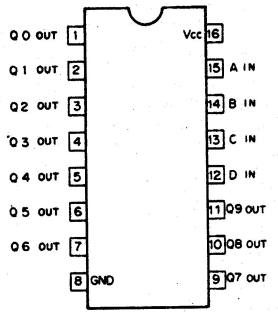
| RD | QD | QC | QB | QA |
|---|---|---|---|---|
| 1 | 0 | 0 | 0 | 0 |
| 0 | COUNT | | | |

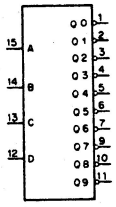
0; LOW LEVEL
1; HIGH LEVEL

## SN74LS42N(TI), SN7442AN(TI)

TTL BCD TO DECIMAL DECODER

— TOP VIEW —



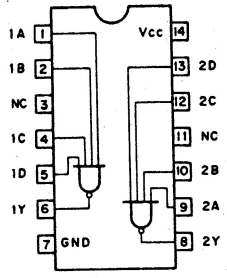




| COUNT | INPUTS | | | | OUTPUTS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D | C | B | A | O9 | O8 | O7 | O6 | O5 | O4 | O3 | O2 | O1 | O0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 2 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 3 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 4 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 5 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 6 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 7 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 8 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| INVALID | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

0; LOW
1; HIGH

## SN74LS40

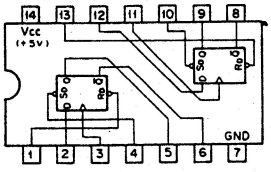
— TOP VIEW —




## SN74LS74AN (TI)

TTL D-TYPE FLIP FLOP WITH DIRECT SET/RESET

— TOP VIEW —



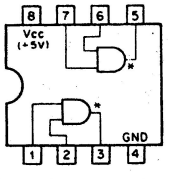

| INPUTS | | | | OUTPUTS | |
|---|---|---|---|---|---|
| SD | RD | CK | D | Qn+1 | $\overline{Qn+1}$ |
| 0 | 1 | X | X | 1 | 0 |
| 1 | 0 | X | X | 0 | 1 |
| 0 | 0 | X | X | 1* | 1* |
| 1 | 1 | ↑ | 1 | 1 | 0 |
| 1 | 1 | ↑ | 0 | 0 | 1 |
| 1 | 1 | 0 | X | Qn | $\overline{Qn}$ |

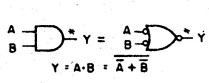
0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
1*; NONSTABLE

## SN75451BP (TI)

PERIPHERAL POSITIVE-AND DRIVER WITH OPEN-COLLECTOR

— TOP VIEW —

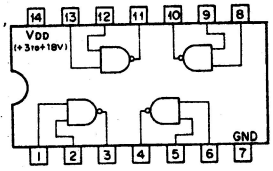


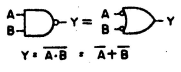




| A | B | Y |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

0; LOW LEVEL
1; HIGH LEVEL
*; OPEN COLLECTOR

TC4011BF (TOSHIBA) FLAT PACKAGE
TC4011BP (TOSHIBA)
TC4011UBP (TOSHIBA)
C-MOS 2-INPUT NAND GATE
— TOP VIEW —

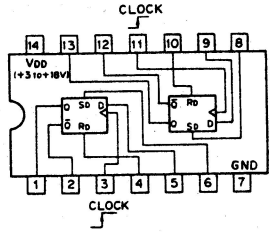



| A | B | Y |
|---|---|---|
| 0 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

0:LOW LEVEL
1:HIGH LEVEL

TC4013BF (TOSHIBA) FLAT PACKAGE
TC4013BP (TOSHIBA)
C-MOS D-TYPE FLIP FLOP WITH DIRECT SET/RESET
— TOP VIEW —




DIRECT R-S FLIP FLOP

| Sd | Rd | Q | $\overline{Q}$ |
|---|---|---|---|
| 0 | 0 | On | $\overline{On}$ |
| 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 1 |

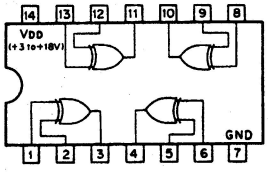
D-TYPE FLIP FLOP

| CKn | CKn+1 |
|---|---|
| D | Q |
| 0 | 0 |
| 1 | 1 |

CLOCK CK; ⌐¬
CKn; BEFORE CLOCK
CKn+1; AFTER CLOCK

0; LOW LEVEL
1; HIGH LEVEL

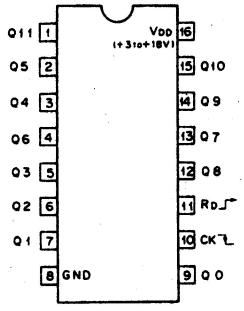
TC4030BP (TOSHIBA)
C-MOS EXCLUSIVE OR GATE
— TOP VIEW —

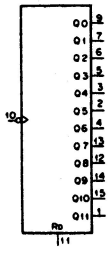


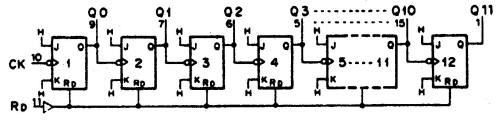
| A | B | Y |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

0:LOW LEVEL
1:HIGH LEVEL

TC4040BP (TOSHIBA)
C-MOS 12-STAGE RIPPLE CARRY BINARY COUNTER/DRIVER
— TOP VIEW —



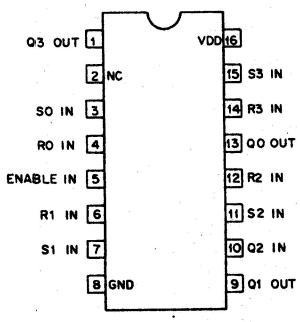



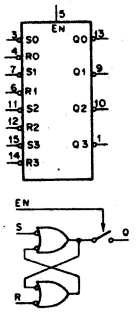

| COUNT | Q11 | Q10 | Q9 | Q8 | Q7 | Q6 | Q5 | Q4 | Q3 | Q2 | Q1 | Q0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | | | | | | | | | | | | |
| 4095 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| RD | Q11 ····· Q0 |
|---|---|
| 1 | ALL LOW |
| 0 | COUNT |

0; LOW LEVEL
1; HIGH LEVEL

TC4044BP (TOSHIBA)
C-MOS 3-STATE OUTPUT NAND R/S LATCH
—TOP VIEW—

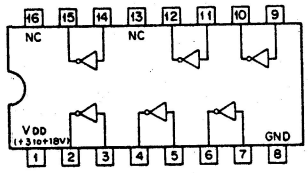


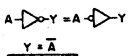




| S | R | E | Q |
|---|---|---|---|
| X | X | 0 | HIGH INPEDANCE |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | NO CHANGE |

X: DONT CARE

TC4049BF (TOSHIBA) FLAT PACKAGE
TC4049BP (TOSHIBA)
C-MOS INVERTING TYPE BUFFER/CONVERTER
— TOP VIEW —

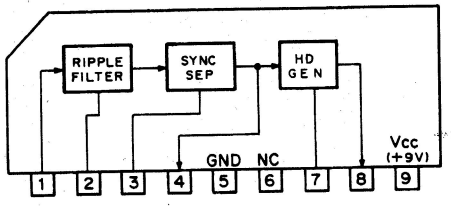


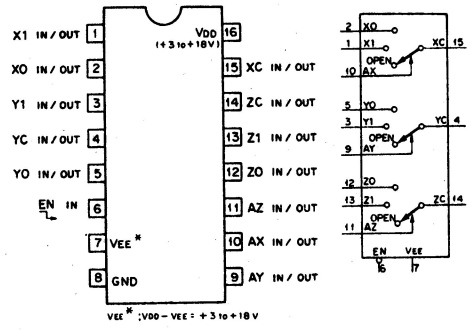

| A | Y |
|---|---|
| 0 | 1 |
| 1 | 0 |

0; LOW LEVEL
1; HIGH LEVEL

TA7357AP (TOSHIBA)
SYNC SEPARATOR/HD PULSE GENERATOR
— SIDE VIEW —



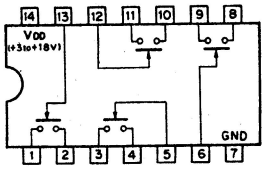
TC4053BF (TOSHIBA) FLAT PACKAGE
TC4053BP (TOSHIBA)
C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER
— TOP VIEW —




| CONT. INPUTS | | ON |
|---|---|---|
| EN | A (X,Y,Z) | CHANNEL |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | X | OPEN |

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE.

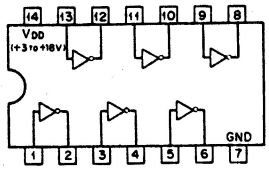
TC4066BF (TOSHIBA) FLAT PACKAGE
TC4066BP (TOSHIBA)
C-MOS BILATERAL SWITCH
— TOP VIEW —

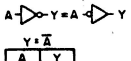



| CONT IN | SW |
|---|---|
| 0 | OFF |
| 1 | ON |

0; LOW LEVEL
1; HIGH LEVEL

TC4069UBF (TOSHIBA) FLAT PACKAGE
TC4069UBP (TOSHIBA)
C-MOS INVERTER
— TOP VIEW —



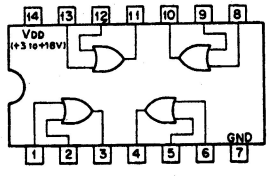



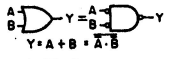

$Y = \overline{A}$

| A | Y |
|---|---|
| 0 | 1 |
| 1 | 0 |

0; LOW LEVEL
1; HIGH LEVEL

TC4071BF (TOSHIBA) FLAT PACKAGE
TC4071BP (TOSHIBA)
C-MOS 2-INPUT OR GATE
— TOP VIEW —



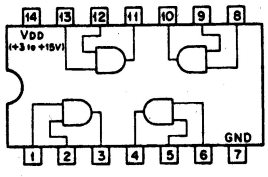



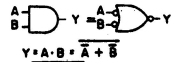

$Y = A + B = \overline{\overline{A} \cdot \overline{B}}$

| A | B | Y |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

0; LOW LEVEL
1; HIGH LEVEL

TC4081BF (TOSHIBA) FLAT PACKAGE
TC4081BP (TOSHIBA)
C-MOS 2-INPUT AND GATE
— TOP VIEW —



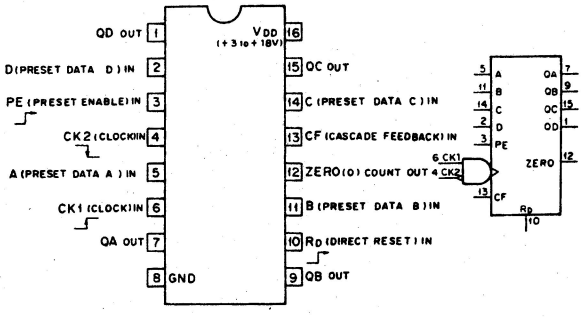




$Y = A \cdot B = \overline{\overline{A} + \overline{B}}$

| A | B | Y |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

0; LOW LEVEL
1; HIGH LEVEL

TC4526BP (TOSHIBA)
C-MOS PROGRAMMABLE DIVIDE-BY-N 4-BIT BINARY DOWN COUNTER
— TOP VIEW —

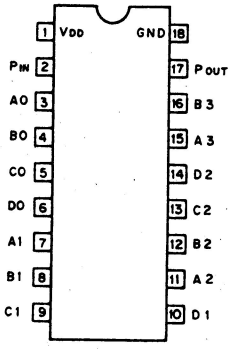


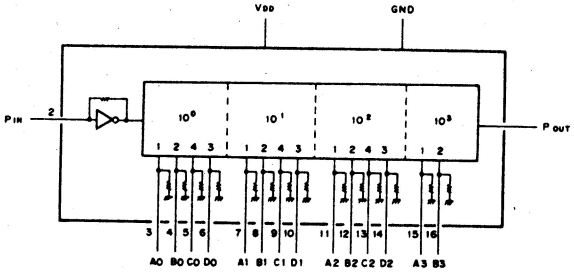

| CK1 | CK2 | PE | RD | ACTION |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | NO COUNT |
| ↓ | 0 | 0 | 0 | COUNT ↓ |
| X | ↑ | 0 | 0 | NO COUNT |
| ↑ | ↓ | 0 | 0 | COUNT↑ |
| X | X | 1 | 0 | PRESET |
| X | X | X | 1 | RESET |

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

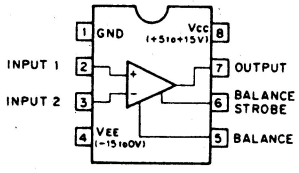
| COUNT | OUTPUTS | | | | |
|---|---|---|---|---|---|
| | QD | QC | QB | QA | ZERO |
| 15 | 1 | 1 | 1 | 1 | 0 |
| 14 | 1 | 1 | 1 | 0 | 0 |
| 13 | 1 | 1 | 0 | 1 | 0 |
| 12 | 1 | 1 | 0 | 0 | 0 |
| 11 | 1 | 0 | 1 | 1 | 0 |
| 10 | 1 | 0 | 1 | 0 | 0 |
| 9 | 1 | 0 | 0 | 1 | 0 |
| 8 | 1 | 0 | 0 | 0 | 0 |
| 7 | 0 | 1 | 1 | 1 | 0 |
| 6 | 0 | 1 | 1 | 0 | 0 |
| 5 | 0 | 1 | 0 | 1 | 0 |
| 4 | 0 | 1 | 0 | 0 | 0 |
| 3 | 0 | 0 | 1 | 1 | 0 |
| 2 | 0 | 0 | 1 | 0 | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 |

TC9122P
IC FOR FREQUENCY DIVIDING
— TOP VIEW —

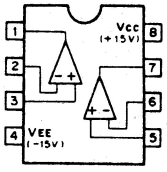


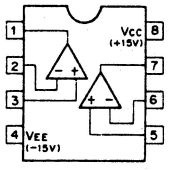

uPC271C (NEC)
VOLTAGE COMPARATOR
— TOP VIEW —



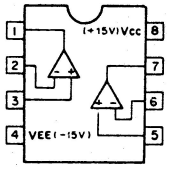

uPC4082
OPERATIONAL AMPLIFIER
(J FET-INPUT)
— TOP VIEW —




uPC4557C (NEC)
OPERATIONAL AMPLIFIER (WIDE BAND, LOW NOISE)
— TOP VIEW —

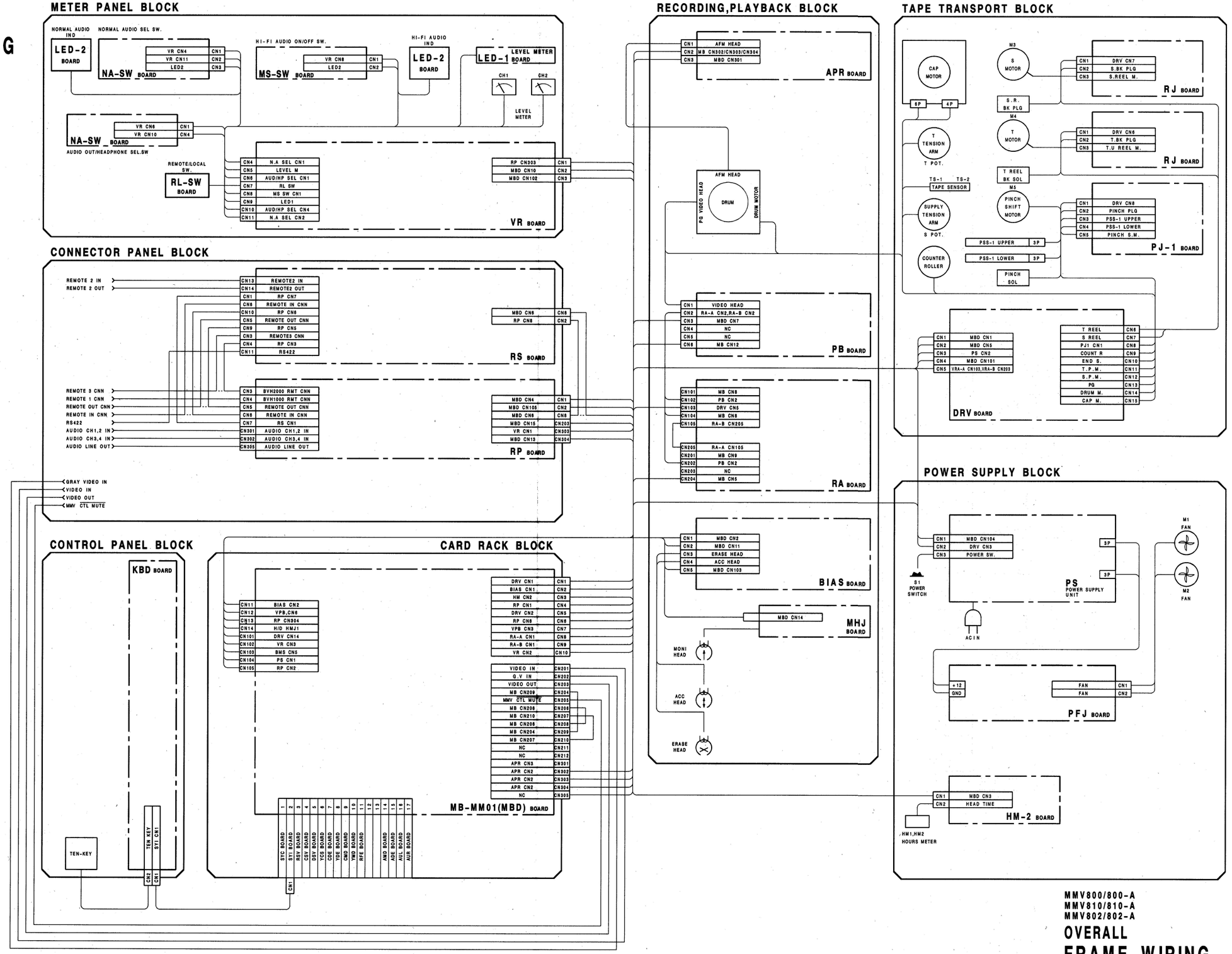



uPC4558C (NEC)
uPC4558G (NEC) FLAT PACKAGE
uPC4558G2 (NEC) FLAT PACKAGE
OPERATIONAL AMPLIFIER
— TOP VIEW — RC4558



# SECTION 14
# SCHEMATIC DIAGRAMS

## OVERALL FRAME WIRING



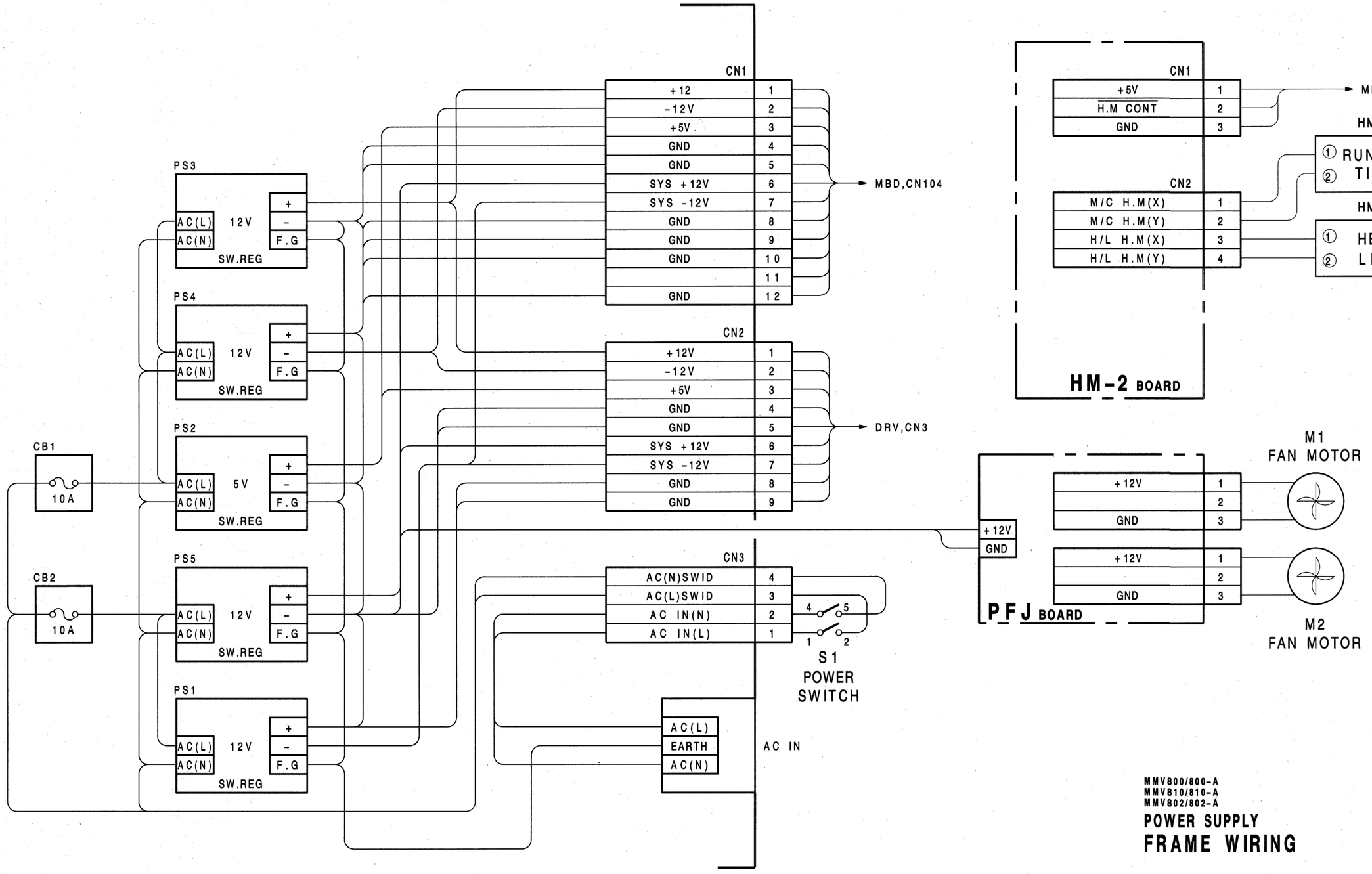



MMV800/800-A
MMV810/810-A
MMV802/802-A

OVERALL
FRAME WIRING

14-1

# POWER SUPPLY FRAME WIRING



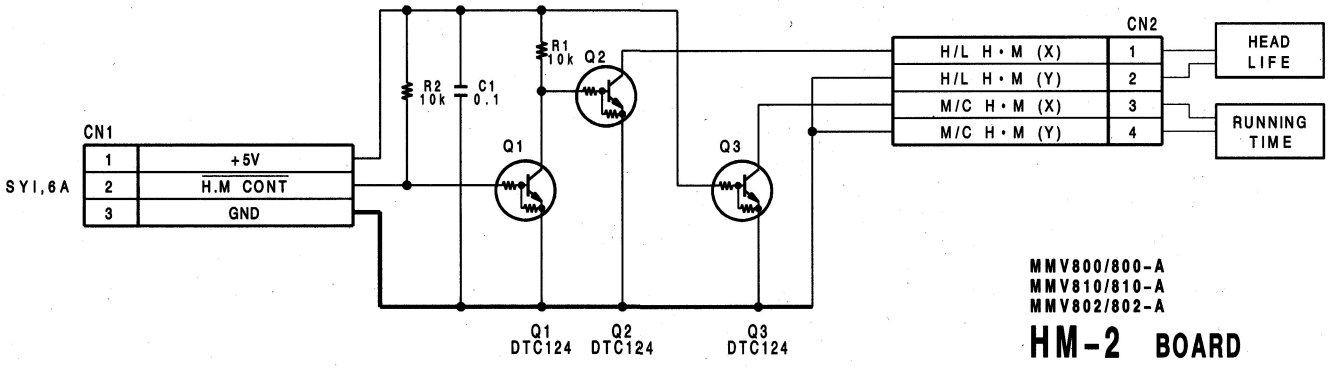

MMV800/800-A
MMV810/810-A
MMV802/802-A

POWER SUPPLY
**FRAME WIRING**



14-2

# HM-2 BOARD
## HOURS CONNECTOR

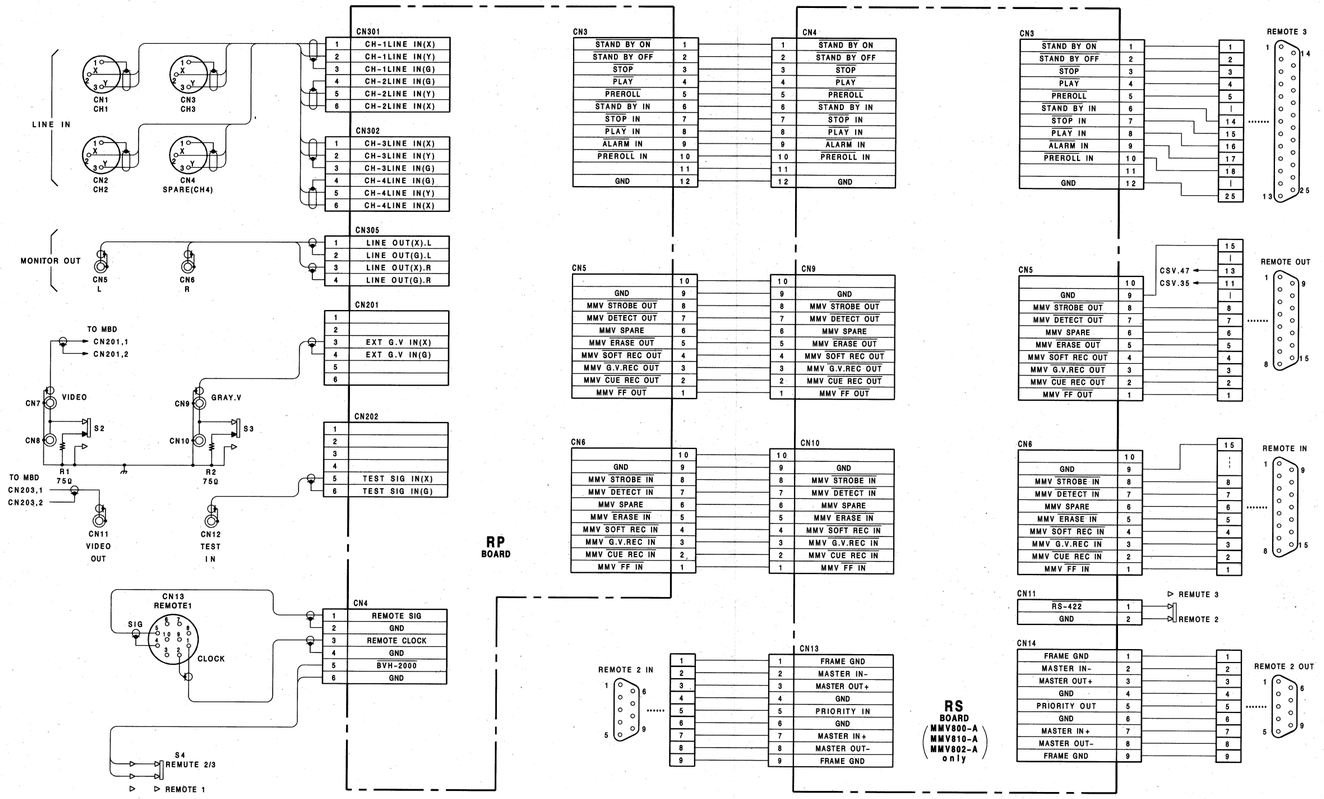



MMV800/800-A
MMV810/810-A
MMV802/802-A

**HM-2 BOARD**

CONNECTOR PANEL FRAME

## CONNECTOR PANEL FRAME WIRING




MMV800/800-A
MMV810/810-A
MMV802/802-A

CONNECTOR PANEL
FRAME WIRING



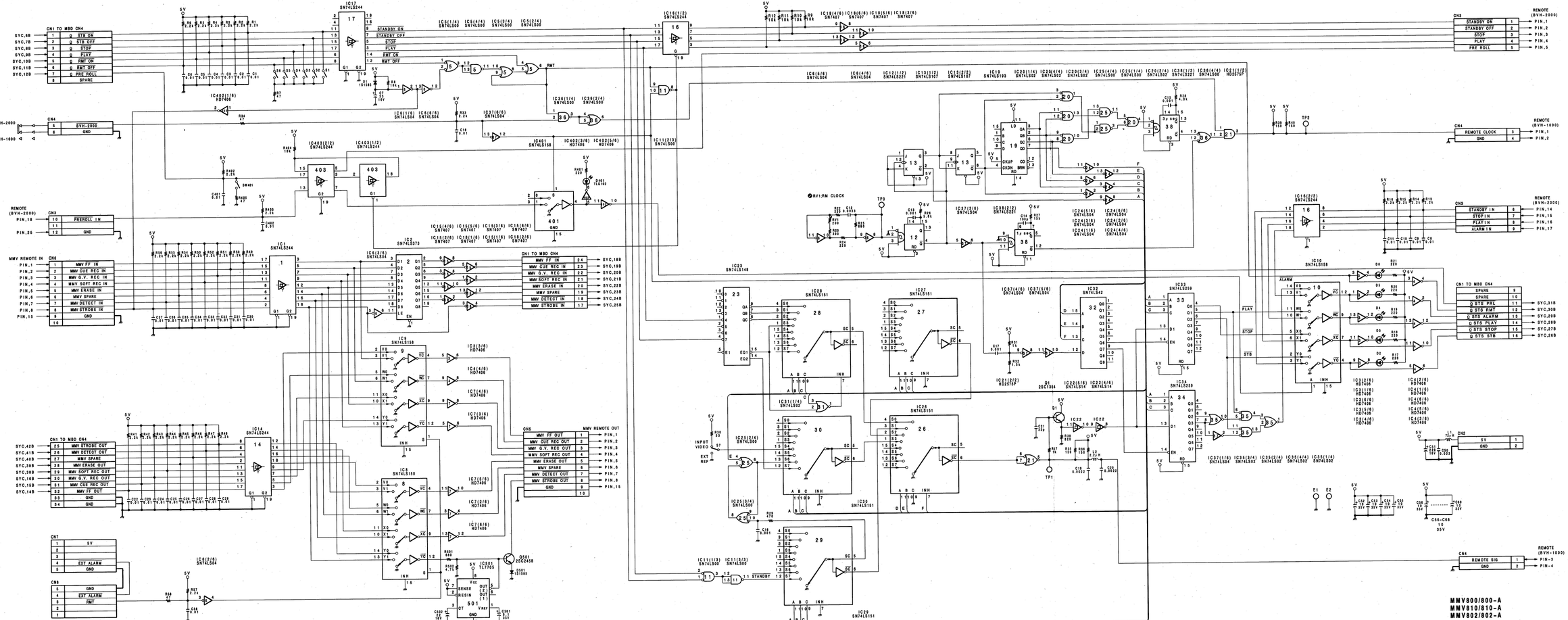
14-5

14-5

CONNECTOR PANEL RACK RP(1/2)

RP(1/2) CONNECTOR PANEL RACK

# RP BOARD (1/2)
## REAR PANEL





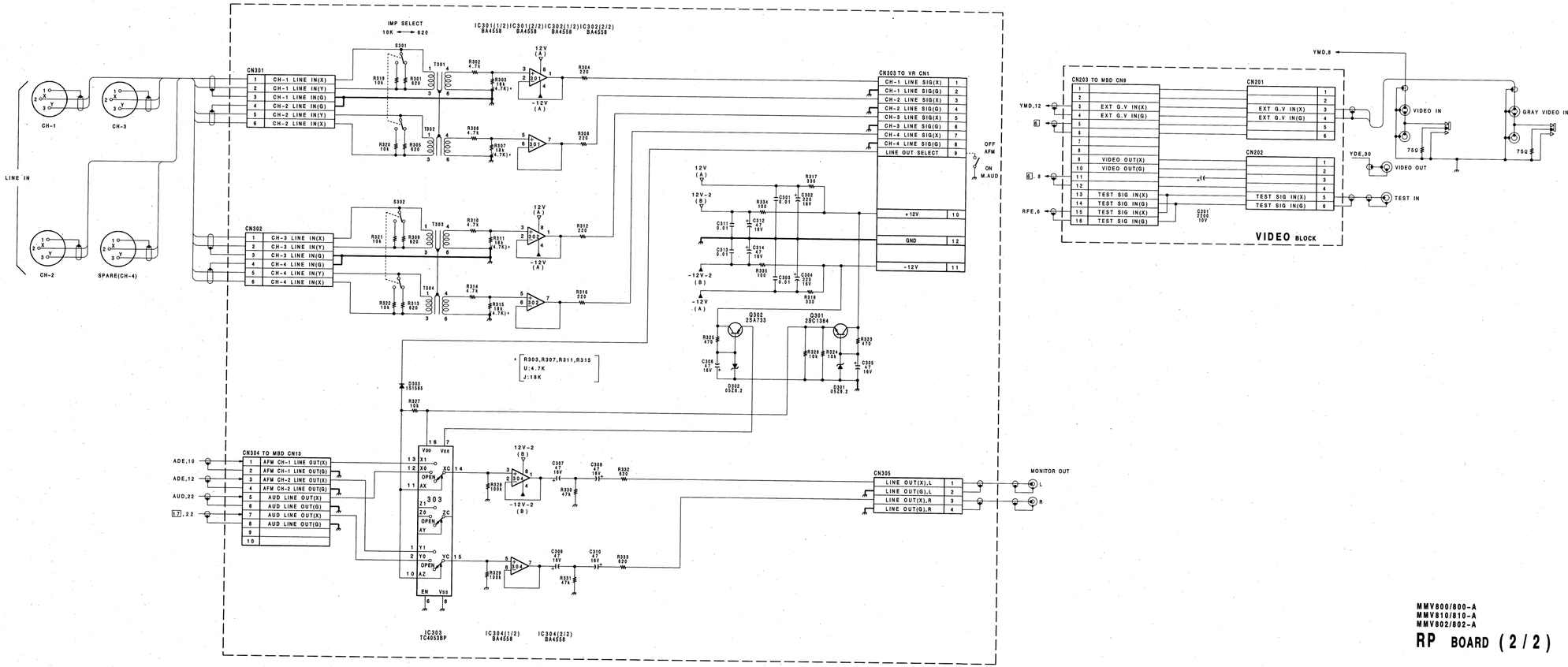

14-6

14-6

RP(2/2) CONNECTOR PANEL RACK

CONNECTOR PANEL RACK RP(2/2)

# RP BOARD (2/2)
REAR PANEL




MMV800/800-A
MMV810/810-A
MMV802/802-A

RP BOARD (2/2)



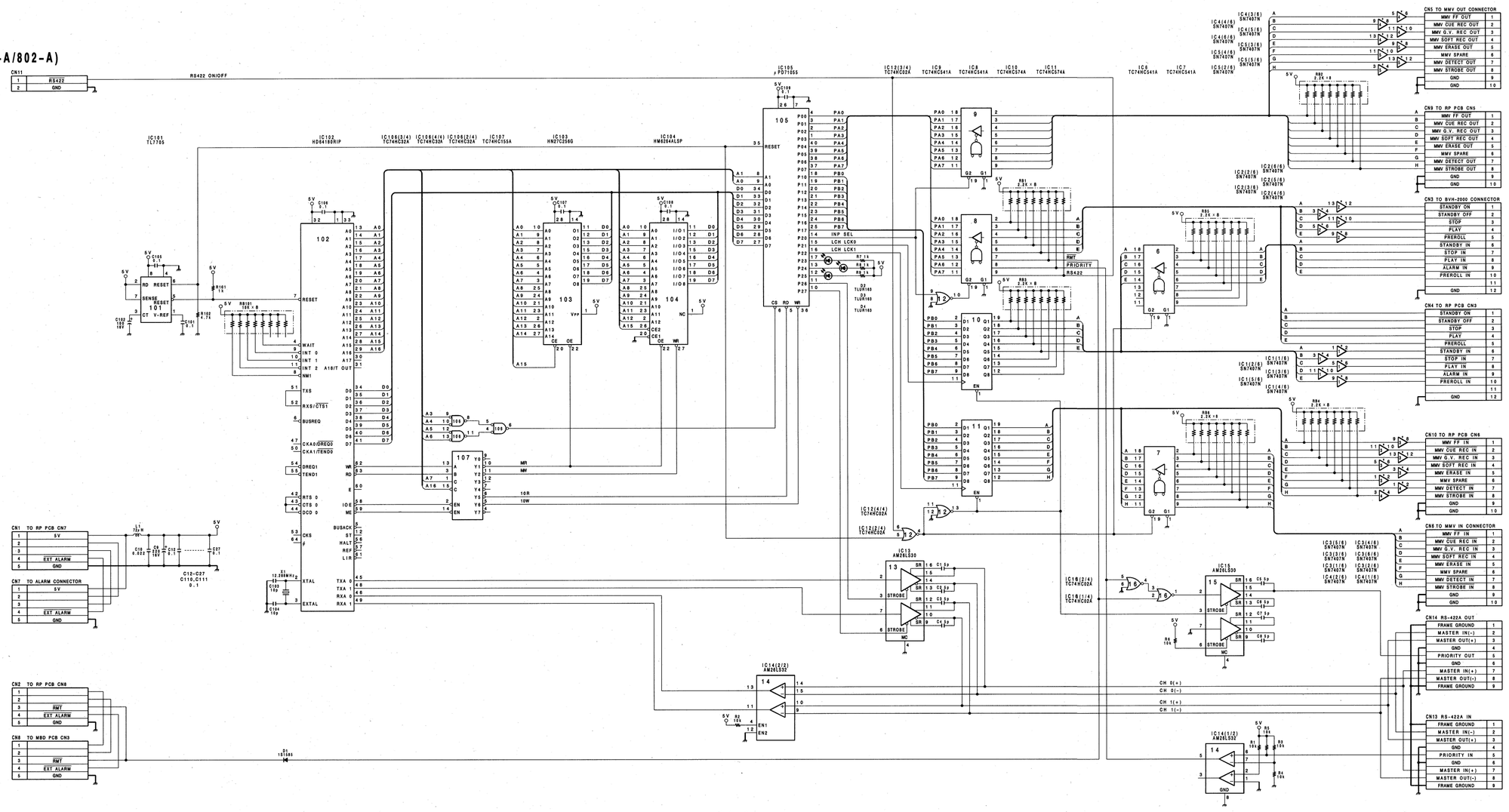
14-7

14-7

(MMV800-A/MMV810-A/MMV802-A)CONNECTOR PANEL RS

RS CONNECTOR PANEL(MMV800-A/MMV810-A/MMV802-A)

# RS BOARD
## RS-422 INTERFACE
## (FOR MMV800-A/810-A/802-A)



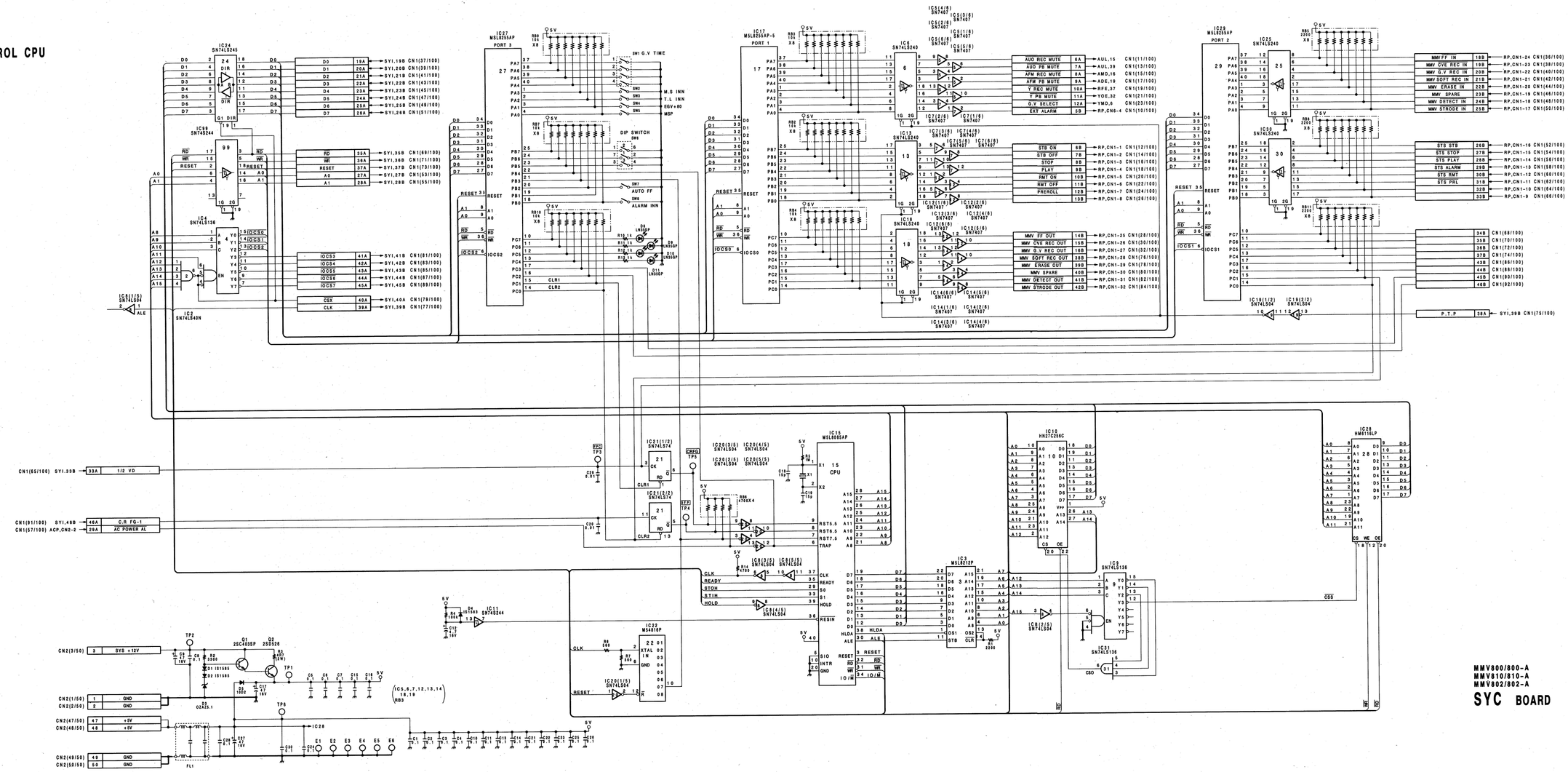



14-8

14-8

CARD RACK SYC

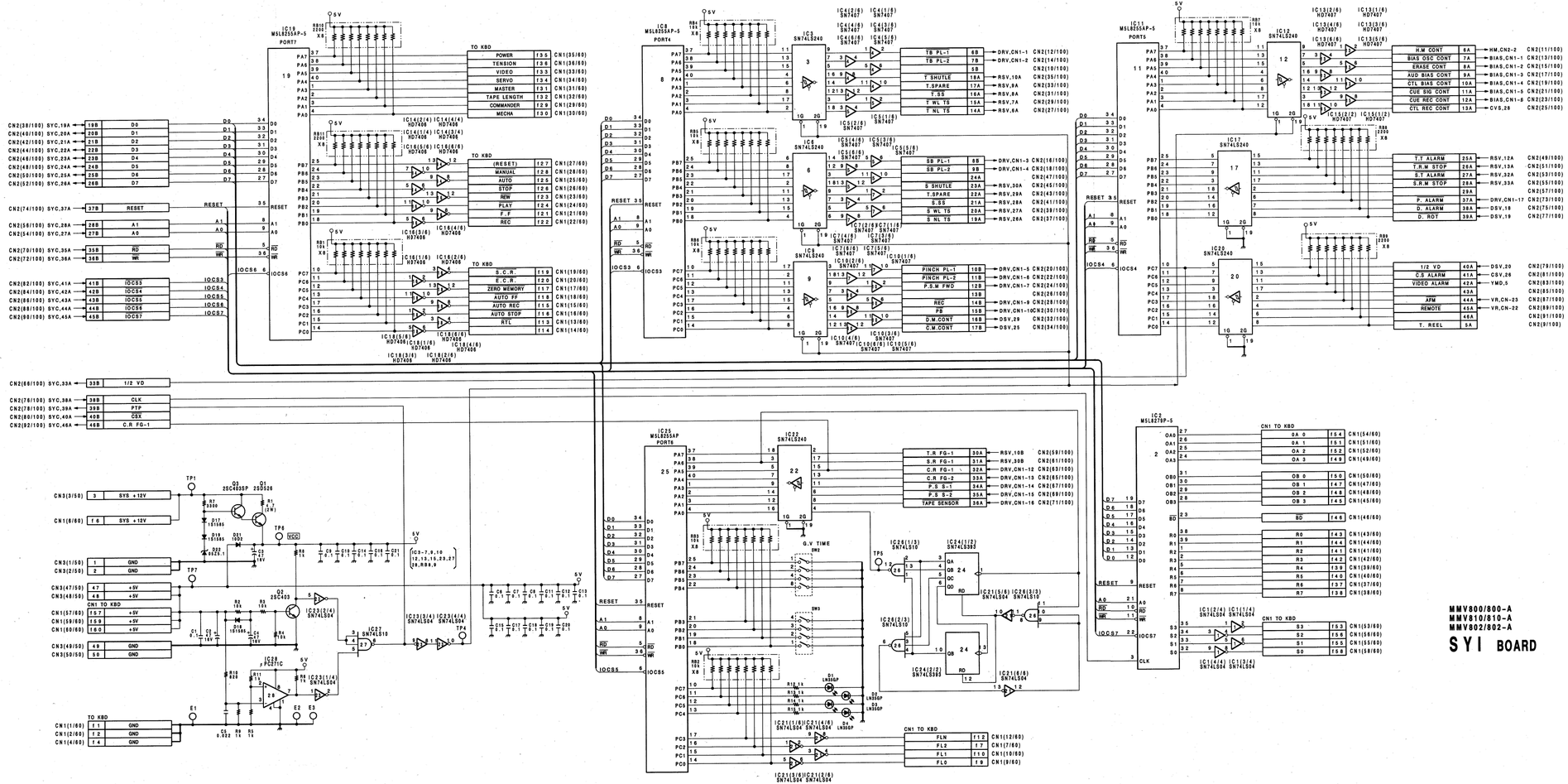
# SYC BOARD
## SYSTEM CONTROL CPU




MMV800/800-A
MMV810/810-A
MMV802/802-A
SYC BOARD

CARD RACK SYI SYI CARD RACK

# SYI BOARD
## SYSTEM CONTROL I/O




MMV800/800-A
MMV810/810-A
MMV802/802-A

SYI BOARD



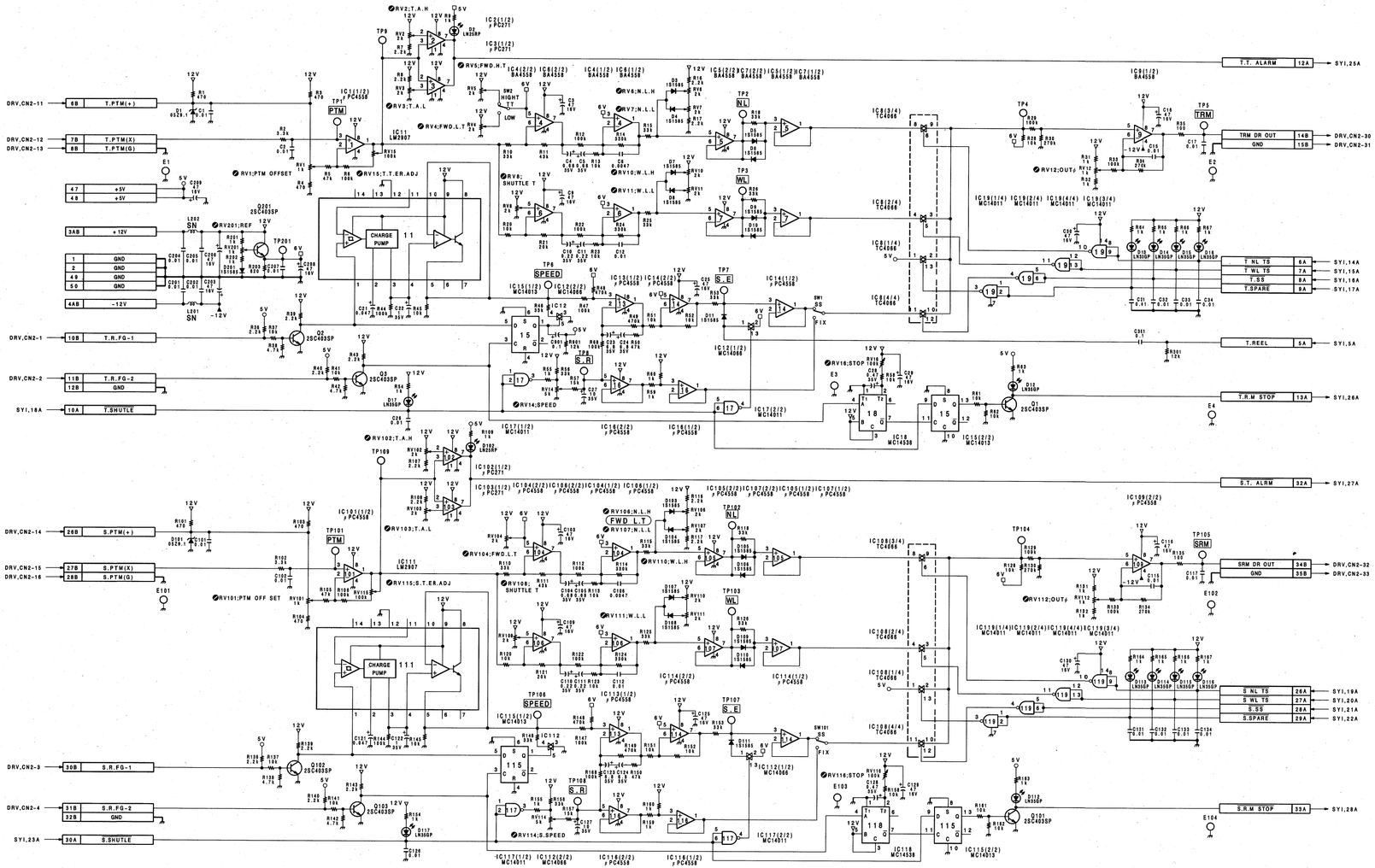
14-10

14-10

RSV CARD RACK

CARD RACK RSV

**RSV BOARD**
**REEL SERVO**




MMV800/800-A
MMV810/810-A
MMV802/802-A
**RSV BOARD**

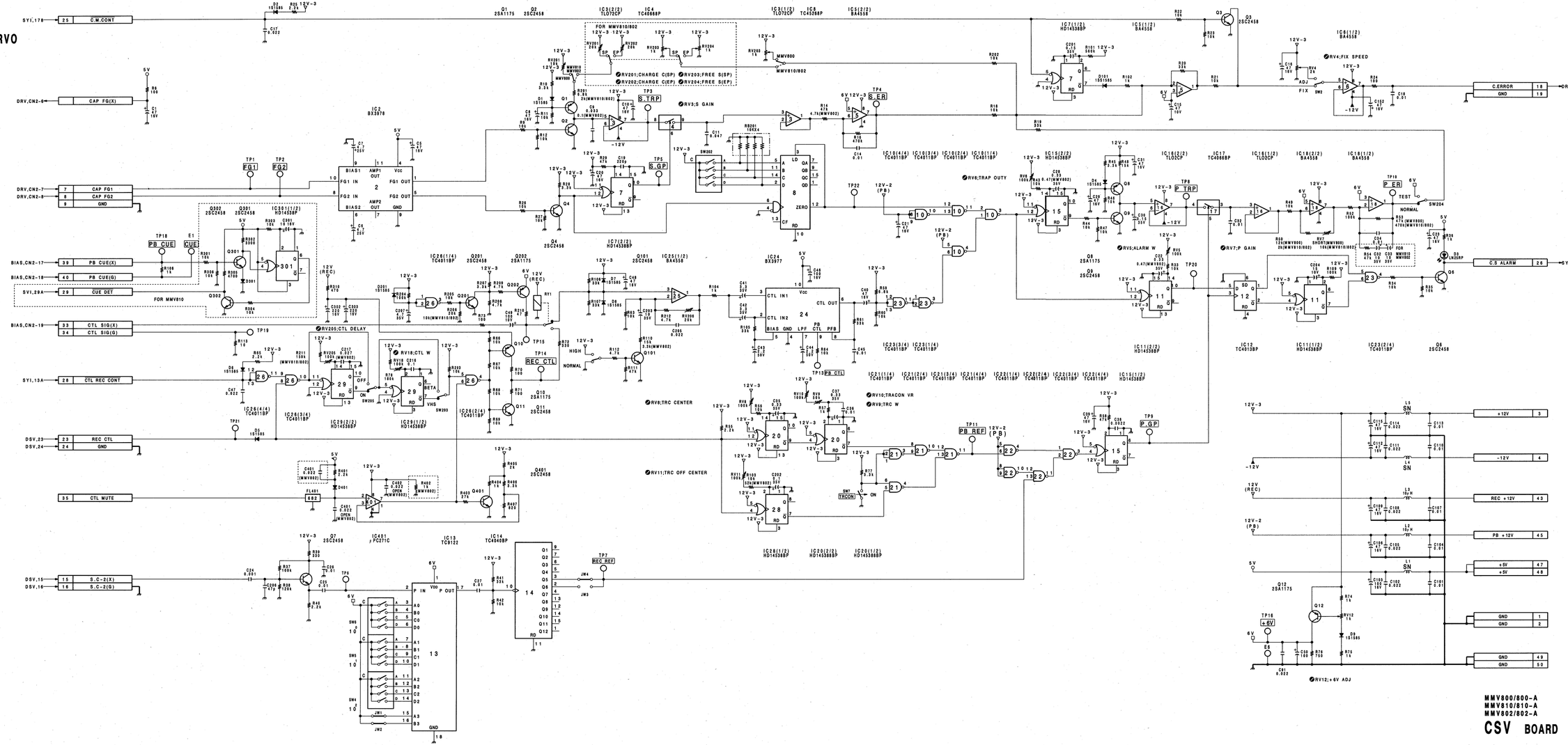


14-11

14-11

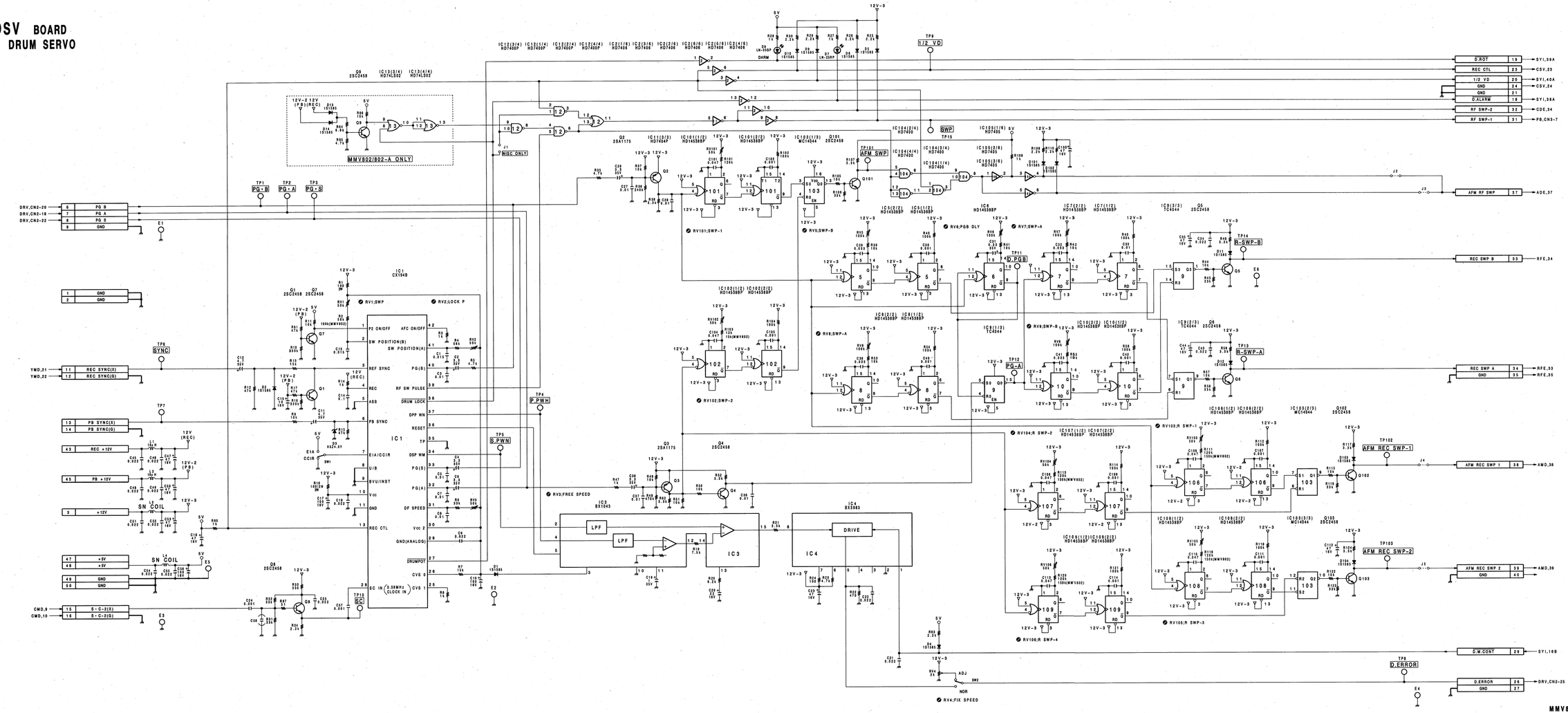
CARD RACK CSV CSV CARD RACK

# CSV BOARD
## CAPSTAN SERVO



DSV CARD RACK
CARD RACK DSV

# DSV BOARD
## DRUM SERVO





14-13
14-13

MMV800/800-A
MMV810/810-A
MMV802/802-A
DSV BOARD

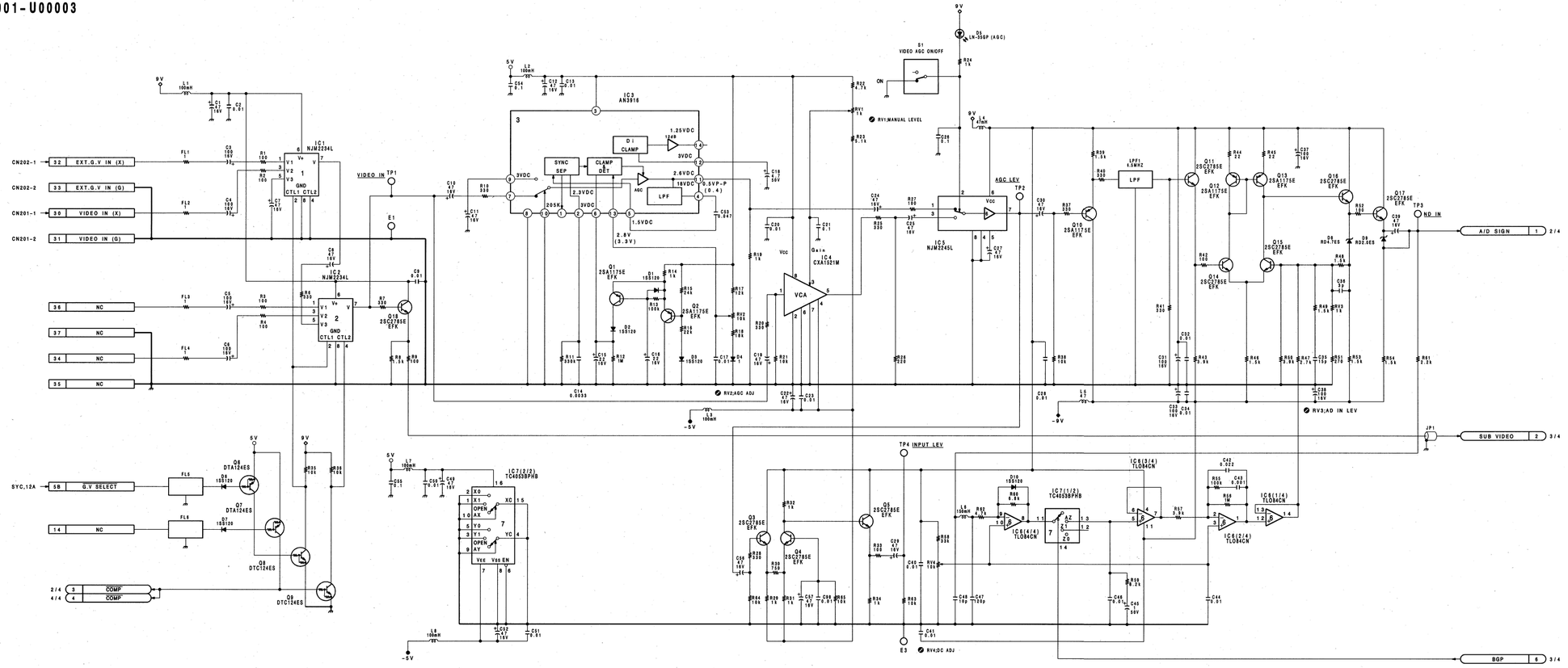
CARD RACK SEP-MM01(YCS)(1/4)

SEP-MM01(YCS)(1/4) CARD RACK

# SEP-MM01(YCS) BOARD (1/4)

VIDEO Y/C SEPARATOR

MMV800(J1);S/N 00001- 00002
MMV800(U7);S/N U00001-U00007
MMV810(U7);S/N U00001-U00003




MMV800(J1);S/N 00001- 00002
MMV800(U7);S/N U00001-U00007
MMV810(U7);S/N U00001-U00003
SEP-MM01(YCS) BOARD (1/4)



14-14

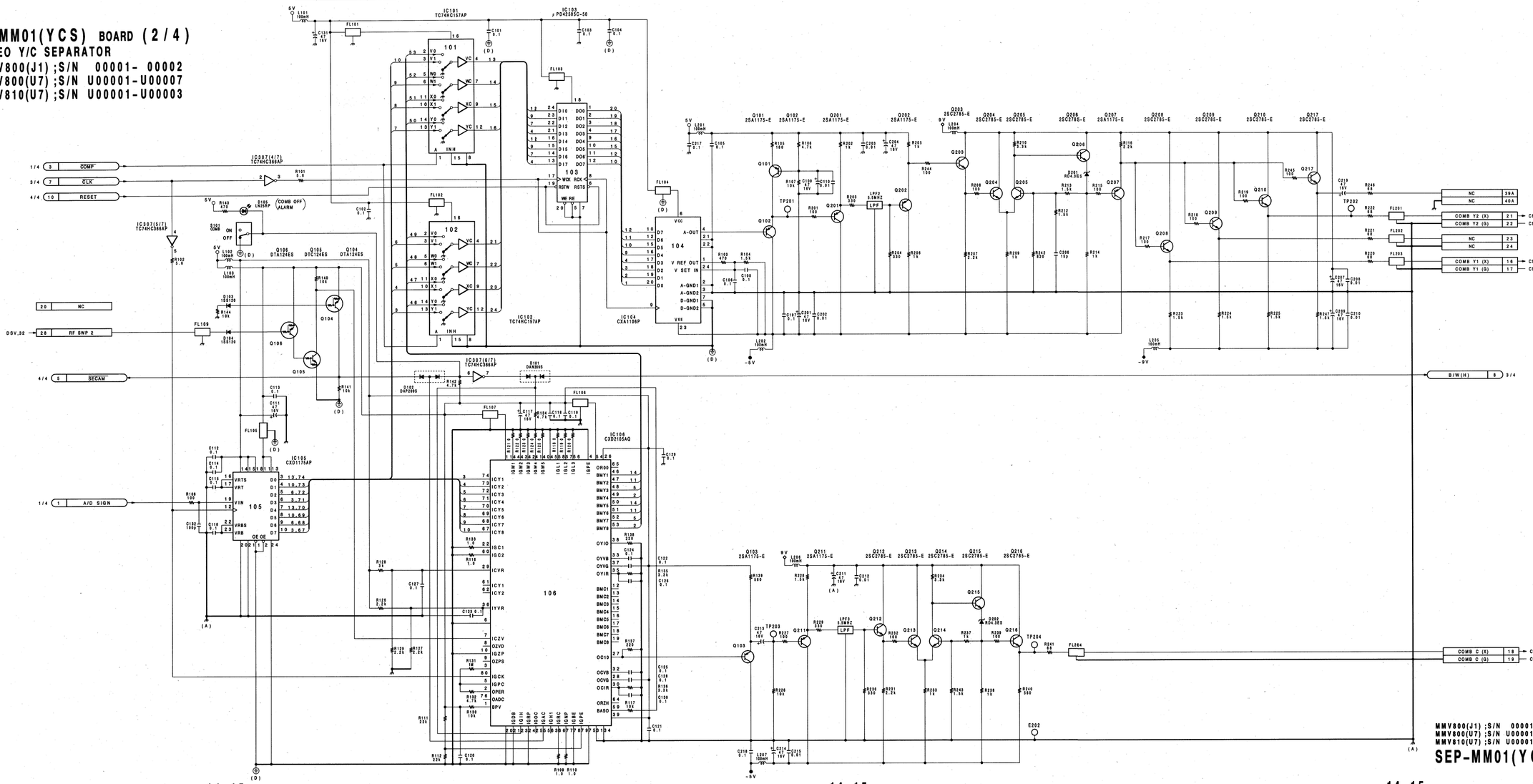
14-14

SEP-MM01(YCS)(2/4) CARD RACK
CARD RACK SEP-MM01(YCS)(2/4)

# SEP-MM01(YCS) BOARD (2/4)

VIDEO Y/C SEPARATOR

MMV800(J1) ;S/N 00001- 00002
MMV800(U7) ;S/N U00001-U00007
MMV810(U7) ;S/N U00001-U00003




MMV800(J1) ;S/N 00001- 00002
MMV800(U7) ;S/N U00001-U00007
MMV810(U7) ;S/N U00001-U00003

SEP-MM01(YCS) BOARD (2/4)


14-15
14-15

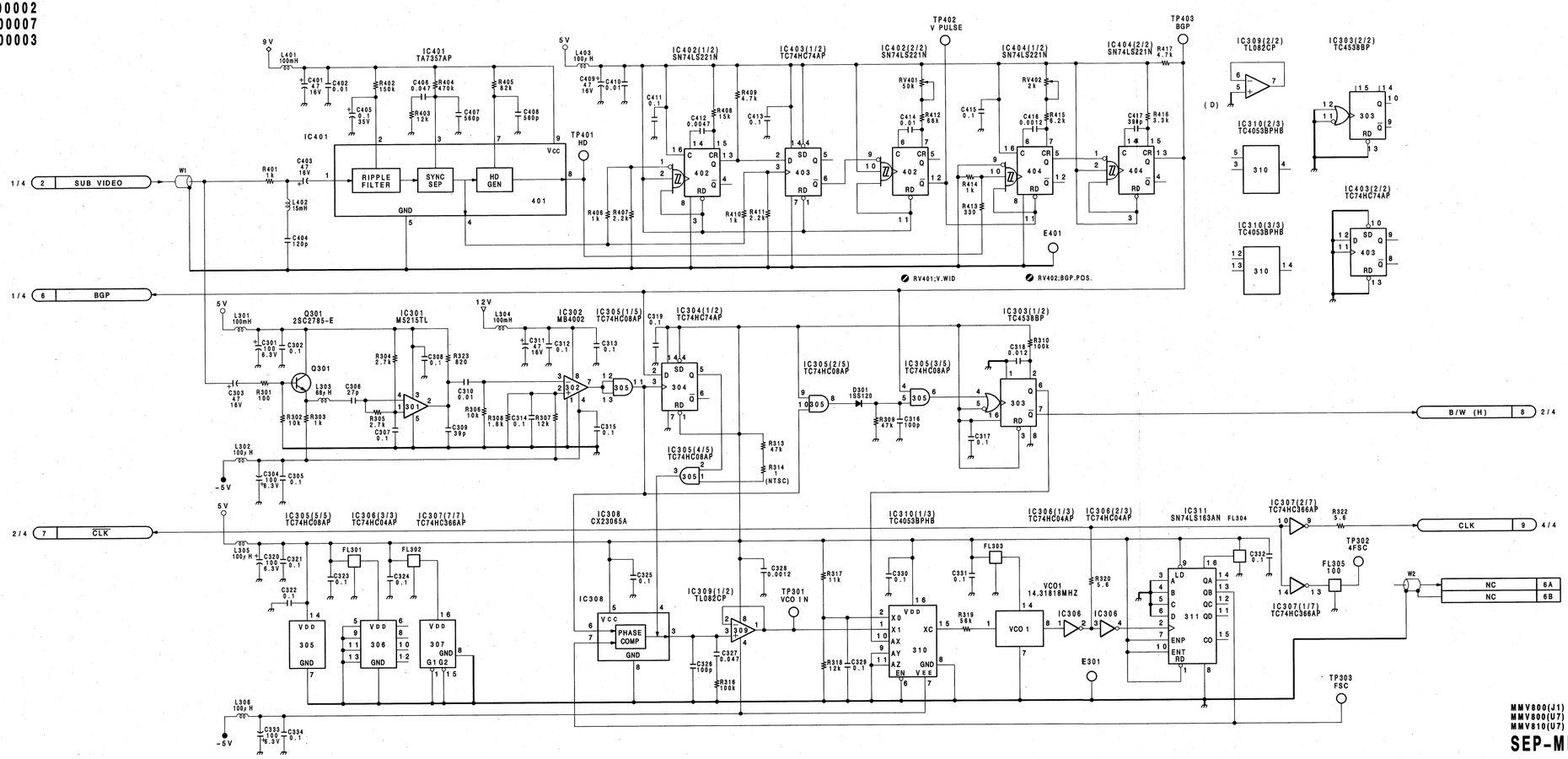
CARD RACK SEP-MM01(YCS)(3/4)

SEP-MM01(YCS)(3/4) CARD RACK

# SEP-MM01(YCS) BOARD (3/4)

VIDEO Y/C SEPARATOR

MMV800(J1) ;S/N 00001- 00002
MMV800(U7) ;S/N U00001-U00007
MMV810(U7) ;S/N U00001-U00003




MMV800(J1) ;S/N 00001- 00002
MMV800(U7) ;S/N U00001-U00007
MMV810(U7) ;S/N U00001-U00003
SEP-MM01(YCS) BOARD (3/4)



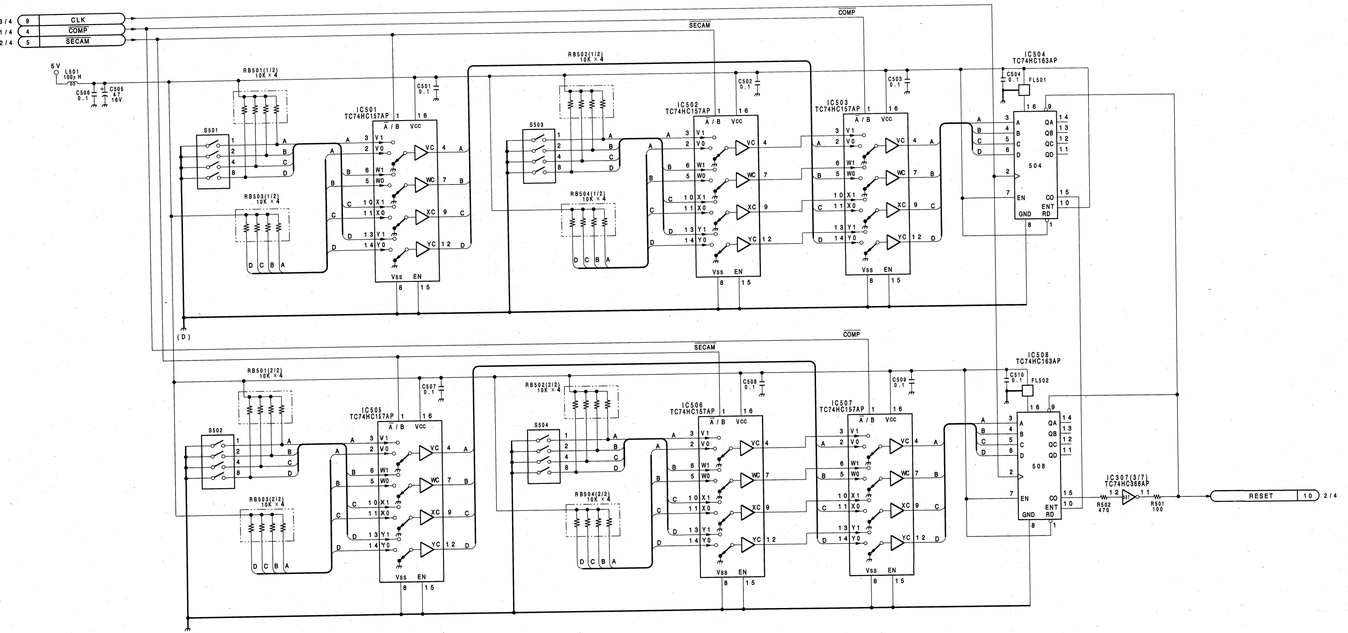
14-16

14-16

## SEP-MM01(YCS) BOARD (4/4)

VIDEO Y/C SEPARATOR

MMV800(J1) ;S/N 00001- 00002 3/4
MMV800(U7) ;S/N U00001-U00007 1/4
MMV810(U7) ;S/N U00001-U00003 2/4






MMV800(J1) ;S/N 00001- 00002
MMV800(U7) ;S/N U00001-U00007
MMV810(U7) ;S/N U00001-U00003
SEP-MM01(YCS) BOARD (4/4)



CARD RACK SEP-MM01(YCS)(4/4) SEP-MM01(YCS)(4/4) CARD RACK

TP1
Input Signal: Color Bars
Mode: E-E
Approx. 1 Vp-p

TP2
Input Signal: Color Bars
Mode: E-E
Approx. 0.8 Vp-p

TP3
Input Signal: Color Bars
Mode: E-E
1.5± 0.03 Vp-p ✿RV3
0.8 ± 0.02 Vdc ✿RV4
0 V
1.0± 0.05 Vp-p ✿RV1 (AGC OFF)
✿RV2 (AGC ON)

TP4
Input Signal: Color Bars
Mode: E-E

TP202
Input Signal: Color Bars
Mode: E-E
1 ± 0.1 Vp-p

TP204
Input Signal: Color Bars
Mode: E-E
0.3 ± 0.1 Vp-p

TP301
Input Signal: Color Bars
Mode: E-E
Approx. 2.5 Vdc
0 V

TP302
Input Signal: Color Bars
Mode: E-E
14.3 MHz
Approx. 5 Vp-p

TP303
Input Signal: Color Bars
Mode: E-E
3.58 MHz
Approx. 3.5 V

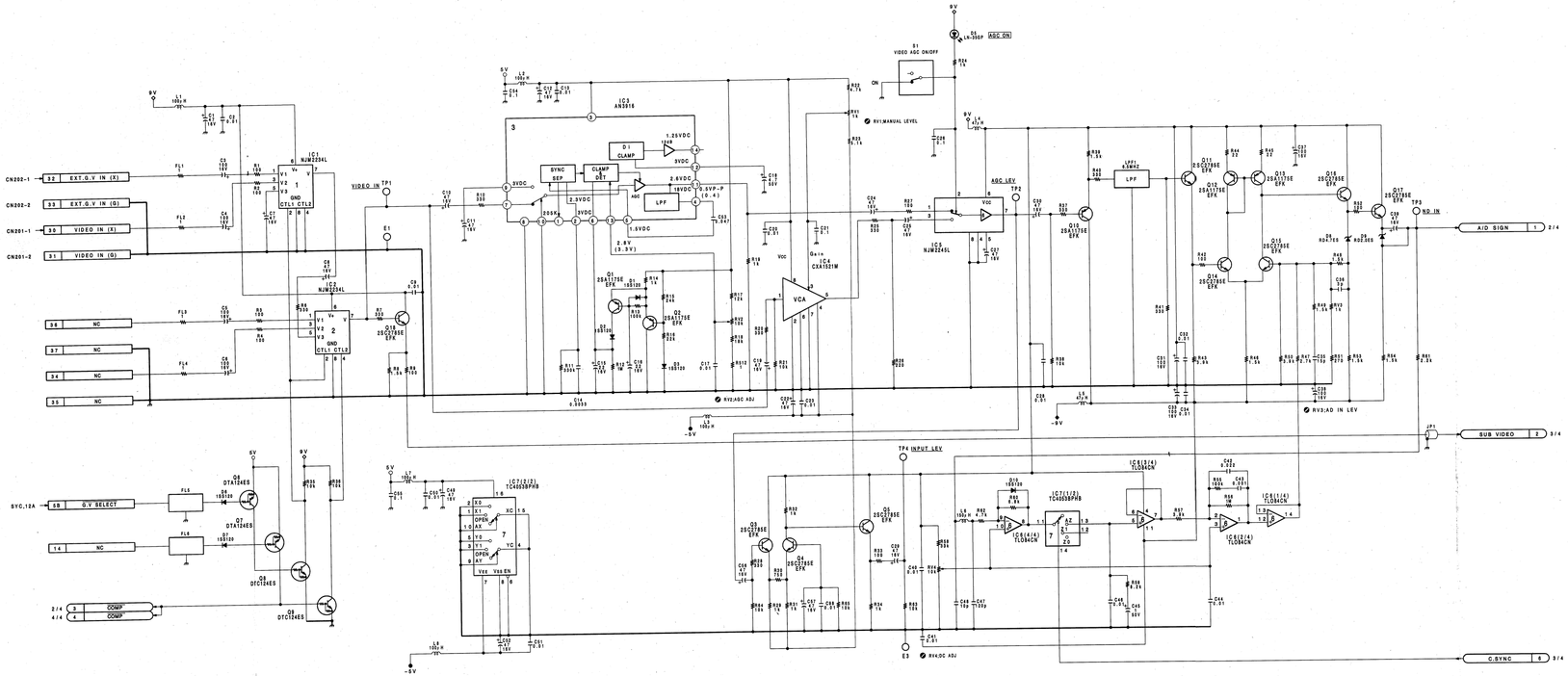
TP402
Input Signal: Color Bars
Mode: E-E
Greater than 4 V

TP403
Input Signal: Color Bars
Mode: E-E
Greater than 4 V

# SEP-MM02(YCS) BOARD(1/4)

## VIDEO Y/C SEPARATOR

MMV800(J1):S/N 00003 and up
MMV800(U7):S/N U00008 and up
MMV800(E32)/MMV810(E32):S/N W00001 and up
MMV810(U7):S/N U00004 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1):S/N 00001 and up
MMV800-A(U7)/MMV810-A(U7):S/N U00001 and up
MMV802(EK1)/MMV802-A(EK1):S/N E00001 and up

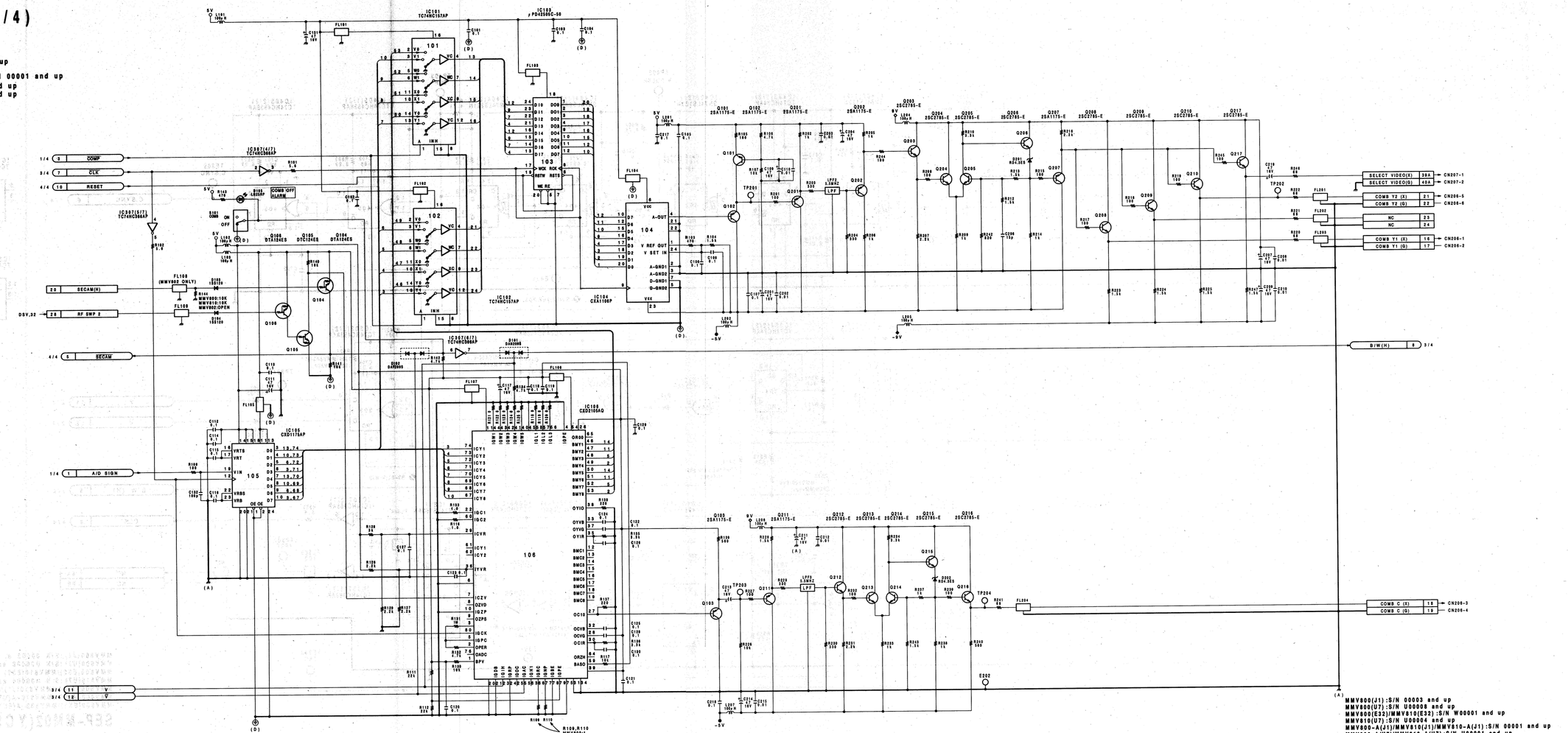



MMV800(J1):S/N 00003 and up
MMV800(U7):S/N U00008 and up
MMV800(E32)/MMV810(E32):S/N W00001 and up
MMV810(U7):S/N U00004 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1):S/N 00001 and up
MMV800-A(U7)/MMV810-A(U7):S/N U00001 and up
MMV802(EK1)/MMV802-A(EK1):S/N E00001 and up
SEP-MM02(YCS) BOARD(1/4)

# SEP-MM02(YCS) BOARD(2/4)

## VIDEO Y/C SEPARATOR

MMV800(J1):S/N 00003 and up
MMV800(U7):S/N U00008 and up
MMV800(E32)/MMV810(E32):S/N W00001 and up
MMV810(U7):S/N U00004 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1):S/N 00001 and up
MMV800-A(U7)/MMV810-A(U7):S/N U00001 and up
MMV802(EK1)/MMV802-A(EK1):S/N E00001 and up




MMV800(J1):S/N 00003 and up
MMV800(U7):S/N U00008 and up
MMV800(E32)/MMV810(E32):S/N W00001 and up
MMV810(U7):S/N U00004 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1):S/N 00001 and up
MMV800-A(U7)/MMV810-A(U7):S/N U00001 and up
MMV802(EK1)/MMV802-A(EK1):S/N E00001 and up

SEP-MM02(YCS) BOARD(2/4)


14-19
14-19

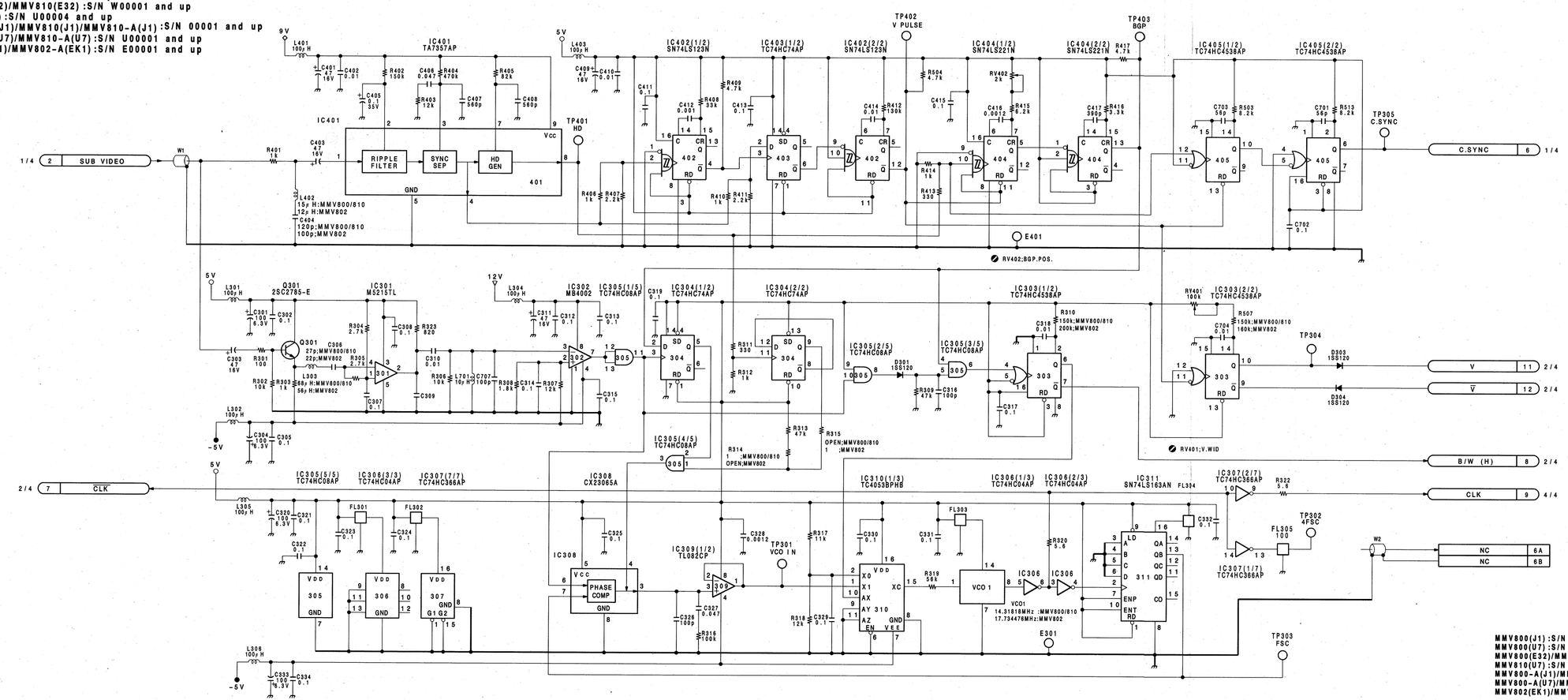
CARD RACK SEP-MM02(YCS)(3/4)

SEP-MM02(YCS)(3/4) CARD RACK

# SEP-MM02(YCS) BOARD(3/4)

## VIDEO Y/C SEPARATOR

MMV800(J1):S/N 00003 and up
MMV800(U7):S/N U00008 and up
MMV800(E32)/MMV810(E32):S/N W00001 and up
MMV810(U7):S/N U00004 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1):S/N 00001 and up
MMV800-A(U7)/MMV810-A(U7):S/N U00001 and up
MMV802(EK1)/MMV802-A(EK1):S/N E00001 and up




MMV800(J1):S/N 00003 and up
MMV800(U7):S/N U00008 and up
MMV800(E32)/MMV810(E32):S/N W00001 and up
MMV810(U7):S/N U00004 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1):S/N 00001 and up
MMV800-A(U7)/MMV810-A(U7):S/N U00001 and up
MMV802(EK1)/MMV802-A(EK1):S/N E00001 and up

SEP-MM02(YCS) BOARD(3/4)



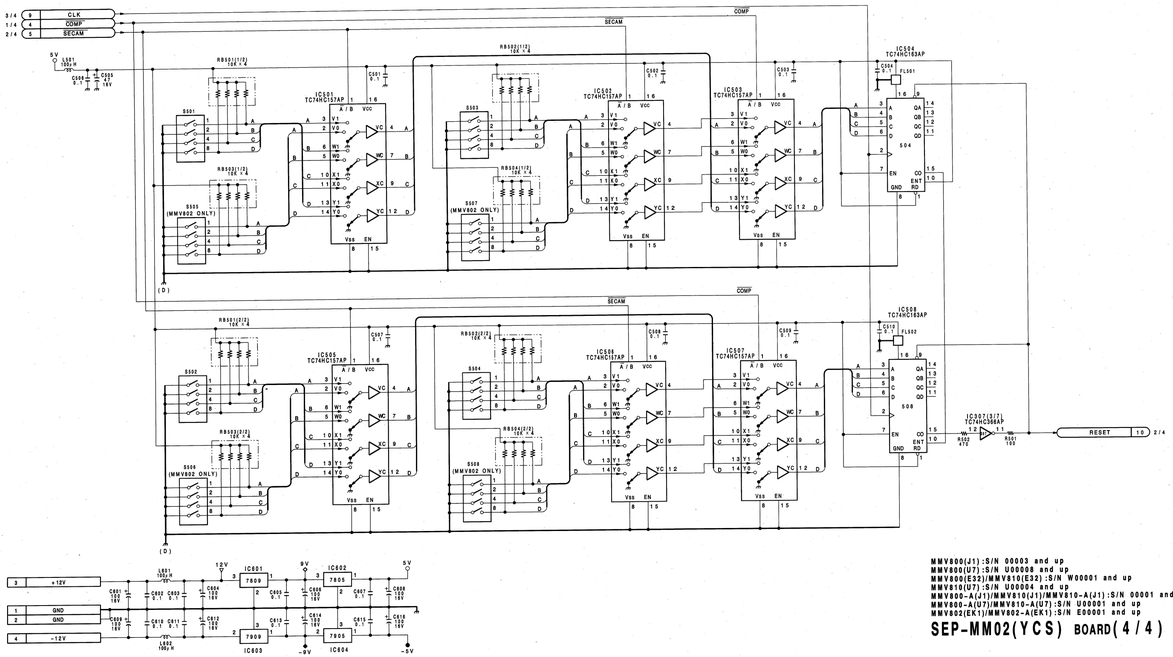
14-20

14-20

# SEP-MM02(YCS) BOARD(4/4)

## VIDEO Y/C SEPARATOR

MMV800(J1):S/N 00003 and up
MMV800(U7):S/N U00008 and up
MMV800(E32)/MMV810(E32):S/N W00001 and up
MMV810(U7):S/N U00004 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1):S/N 00001 and up
MMV800-A(U7)/MMV810-A(U7):S/N U00001 and up
MMV802(EK1)/MMV802-A(EK1):S/N E00001 and up




MMV800(J1):S/N 00003 and up
MMV800(U7):S/N U00008 and up
MMV800(E32)/MMV810(E32):S/N W00001 and up
MMV810(U7):S/N U00004 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1):S/N 00001 and up
MMV800-A(U7)/MMV810-A(U7):S/N U00001 and up
MMV802(EK1)/MMV802-A(EK1):S/N E00001 and up

## SEP-MM02(YCS) BOARD(4/4)



CARD RACK SEP-MM02(YCS)(4/4) SEP-MM02(YCS)(4/4) CARD RACK

〔FOR MMV800/810〕

TP1
Input Signal: Color Bars
Mode: E-E
Approx. 1 Vp-p

TP2
Input Signal: Color Bars
Mode: E-E
Approx. 0.8 Vp-p

TP3
Input Signal: Color Bars
Mode: E-E
1.5 ± 0.03 Vp-p ◎RV3
1.0 ± 0.05 Vp-p ◎RV1 (AGC OFF)
0.8 ± 0.02 Vdc ◎RV4
0 V
◎RV2 (AGC ON)

TP4
Input Signal: Color Bars
Mode: E-E

TP202
Input Signal: Color Bars
Mode: E-E
1 ± 0.1 Vp-p

TP204
Input Signal: Color Bars
Mode: E-E
0.3 ± 0.1 Vp-p

TP301
Input Signal: Color Bars
Mode: E-E
Approx. 2.5 Vdc
0 V

TP302
Input Signal: Color Bars
Mode: E-E
14.3 MHz
Approx. 5 Vp-p

TP303
Input Signal: Color Bars
Mode: E-E
3.58 MHz
Approx. 3.5 V

TP402
Input Signal: Color Bars
Mode: E-E
Greater than 4 V

TP403
Input Signal: Color Bars
Mode: E-E
Greater than 4 V

〔FOR MMV802〕

TP1
Input Signal: Color Bars
Mode: E-E
Approx. 1 Vp-p

TP2
Input Signal: Color Bars
Mode: E-E
Approx. 0.8 Vp-p

TP3
Input Signal: Color Bars
Mode: E-E
1.5 ± 0.03 Vp-p ◎RV3
1.0 ± 0.05 Vp-p ◎RV1 (AGC OFF)
0.8 ± 0.02 Vdc ◎RV4
◎RV2 (AGC ON)

TP4
Input Signal: Color Bars
Mode: E-E

TP202
Input Signal: Color Bars
Mode: E-E
1 ± 0.1 Vp-p

TP204
Input Signal: Color Bars (PAL)
Mode: E-E
0.33 ± 0.1 Vp-p

TP204
Input Signal: Color Bars (SECAM)
Mode: E-E
Approx. 0.7 Vp-p

TP301
Input Signal: Color Bars
Mode: E-E
Approx. 2.5 Vdc
0 V

TP302
Input Signal: Color Bars
Mode: E-E
17.7 MHz
Approx. 5 Vp-p

TP303
Input Signal: Color Bars
Mode: E-E
4.43 MHz
Approx. 3.5 V

TP304
Input Signal: Color Bars
Mode: E-E

TP305
Input Signal: Color Bars
Mode: E-E

＊上下注意

TP402
Input Signal: Color Bars
Mode: E-E
Greater than 5 V

TP403
Input Signal: Color Bars
Mode: E-E
Greater than 5 V


14-21
14-21

CARD RACK CD-MM01(CDE) CD-MM01(CDE) CARD RACK

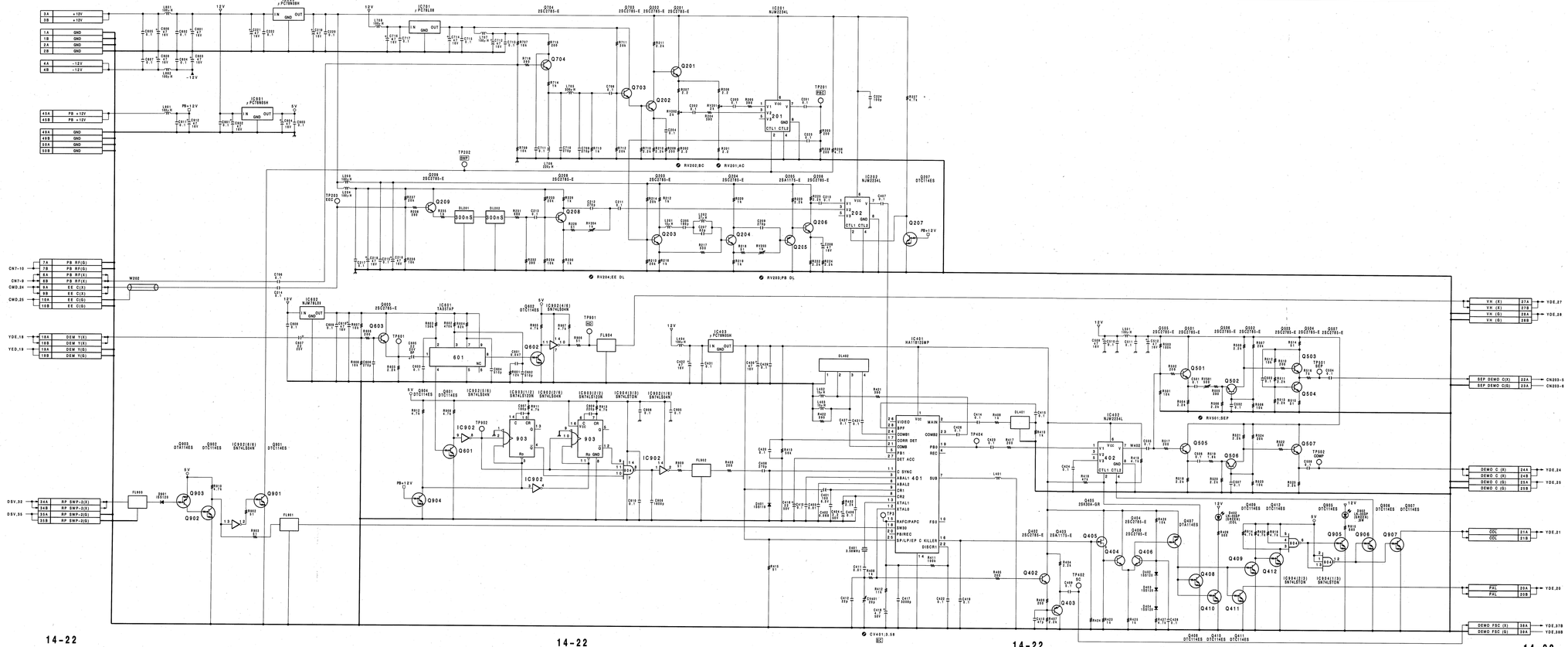
CARD RACK CD-MM01(CDE) CD-MM01(CDE) CARD RACK

# CD-MM01(CDE) BOARD

VIDEO C DEMODULATOR

MMV800/800-A

MMV810/810-A




14-22

14-22

14-22

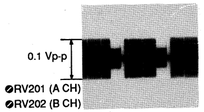
14-22

MMV800/800-A
MMV810/810-A

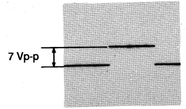
CD-MM01(CDE) BOARD

CD-MM01(CDE) CARD RACK
CARD RACK CD-MM01(CDE)

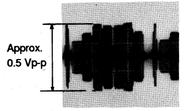
TP201
Input Signal: Color Bars
Mode: Play



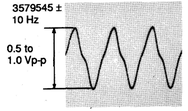

TP202
Input Signal: Color Bars
Mode: E-E



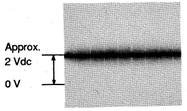

TP203
Input Signal: Color Bars
Mode: E-E



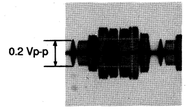

TP402
Input Signal: Color Bars
Mode: E-E



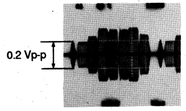

TP403
Input Signal: Color Bars
Mode: E-E



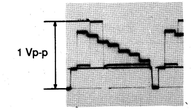

TP404
Input Signal: Color Bars
Mode: E-E



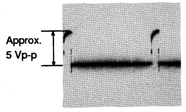

TP502
Input Signal: Color Bars
Mode: E-E



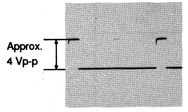

TP601
Input Signal: Color Bars
Mode: E-E




TP901
Input Signal: Color Bars
Mode: E-E




TP902
Input Signal: Color Bars
Mode: E-E





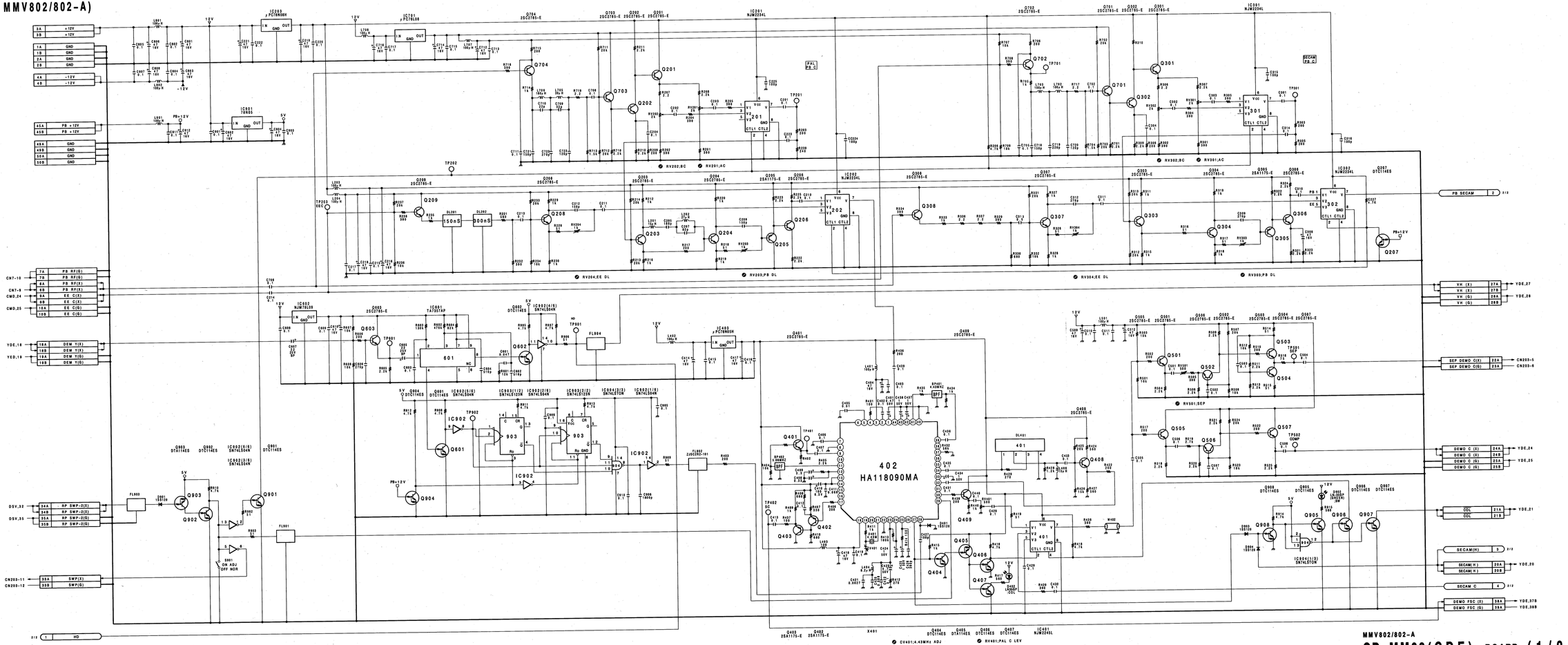
14-23
14-23

CARD RACK CD-MM02(CDE)(1/2)

CD-MM02(CDE)(1/2) CARD RACK

# CD-MM02(CDE) BOARD (1/2)

## VIDEO C DEMODULATOR (FOR MMV802/802-A)




MMV802/802-A

CD-MM02(CDE) BOARD (1/2)



14-24

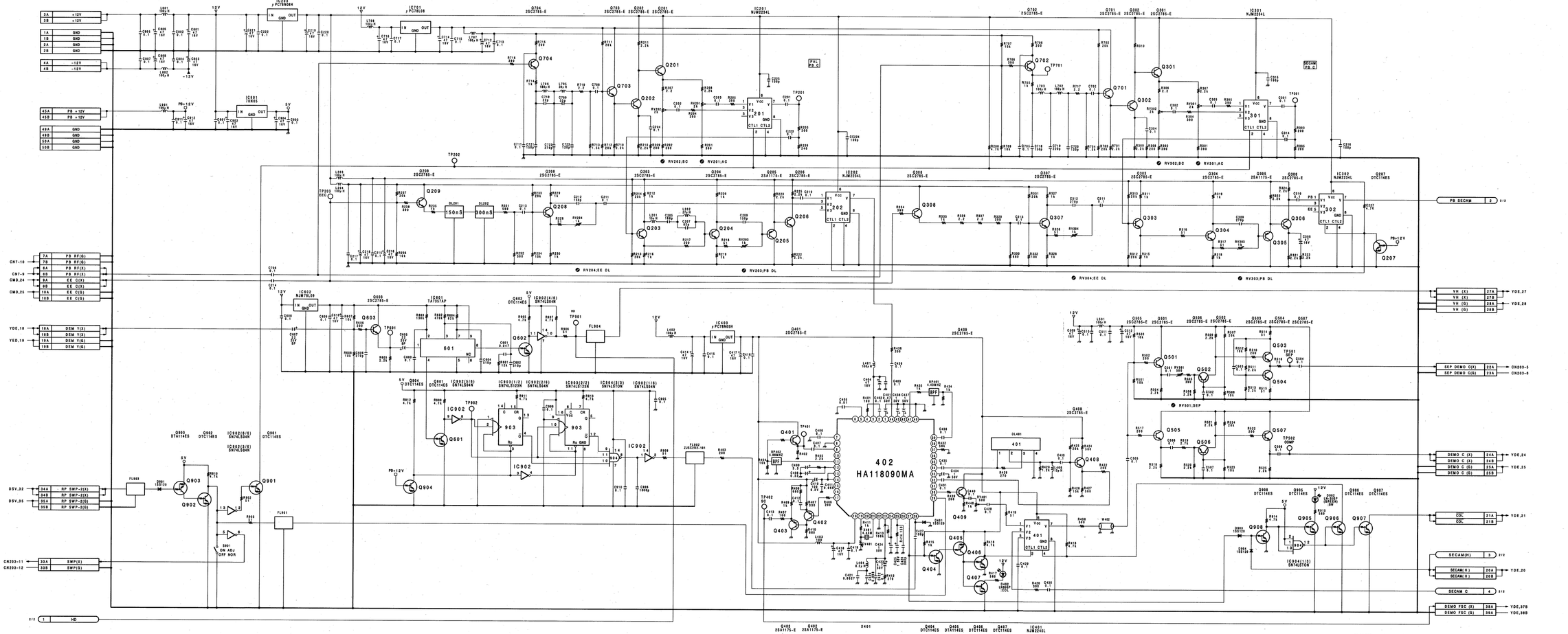
14-24

CARD RACK CD-MM02(CDE)(1/2)

CD-MM02(CDE)(1/2) CARD RACK

# CD-MM02(CDE) BOARD (1/2)

## VIDEO C DEMODULATOR
## (FOR MMV802/802-A)




MMV802/802-A

CD-MM02(CDE) BOARD (1/2)

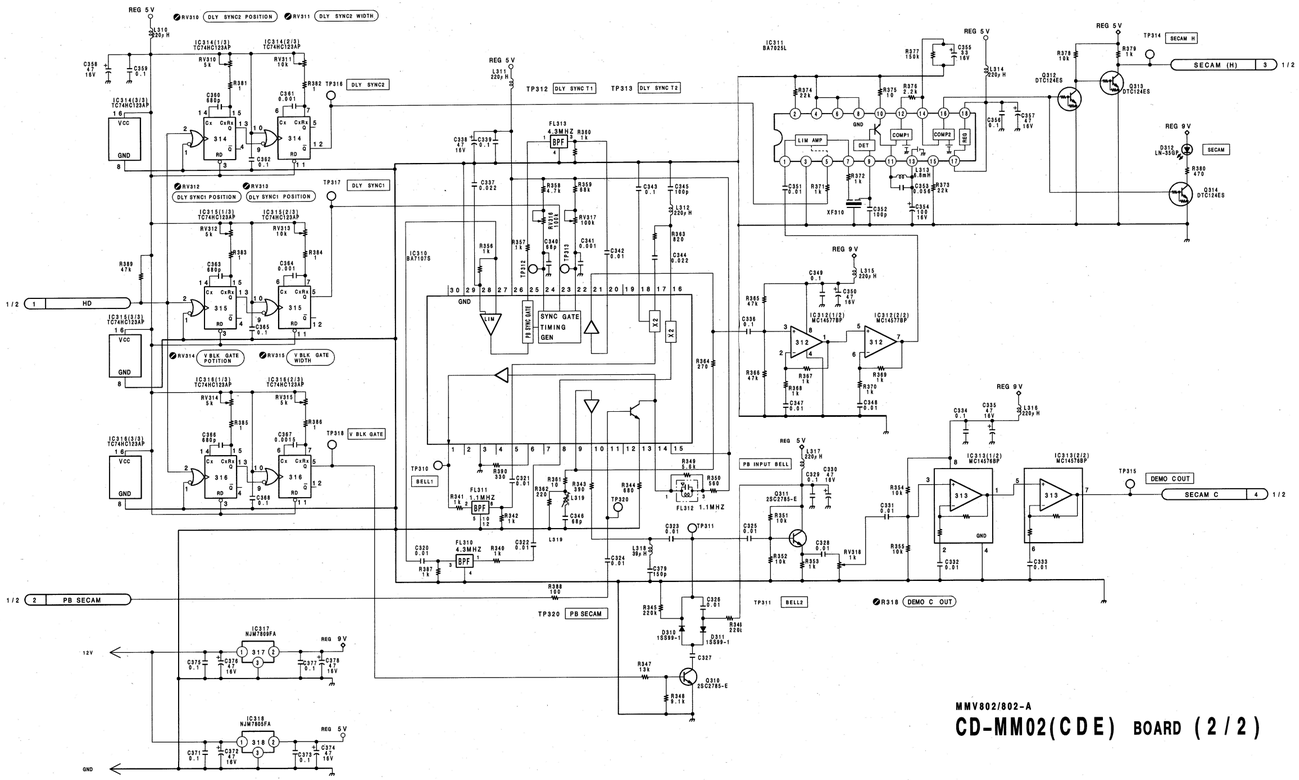


14-24

14-24

CD-MM02(CDE)(2/2) CARD RACK

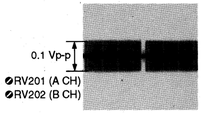
# CD-MM02(CDE) BOARD (2/2)
## VIDEO C DEMODULATOR
## (FOR MMV802/802-A)



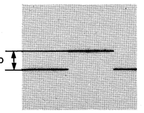

MMV802/802-A
## CD-MM02(CDE) BOARD (2/2)


14-25

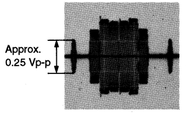
TP201
Input Signal: Color Bars
Mode: Play



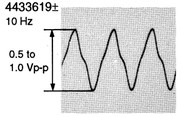

TP202
Input Signal: Color Bars
Mode: E-E



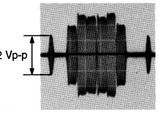

TP203
Input Signal: Color Bars
Mode: E-E



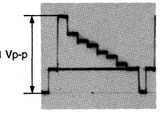

TP402
Input Signal: Color Bars
Mode: E-E



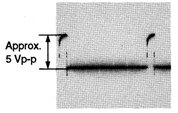

TP502
Input Signal: Color Bars
Mode: E-E



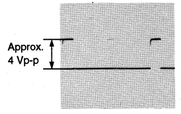

TP601
Input Signal: Color Bars
Mode: E-E




TP901
Input Signal: Color Bars
Mode: E-E




TP902
Input Signal: Color Bars
Mode: E-E



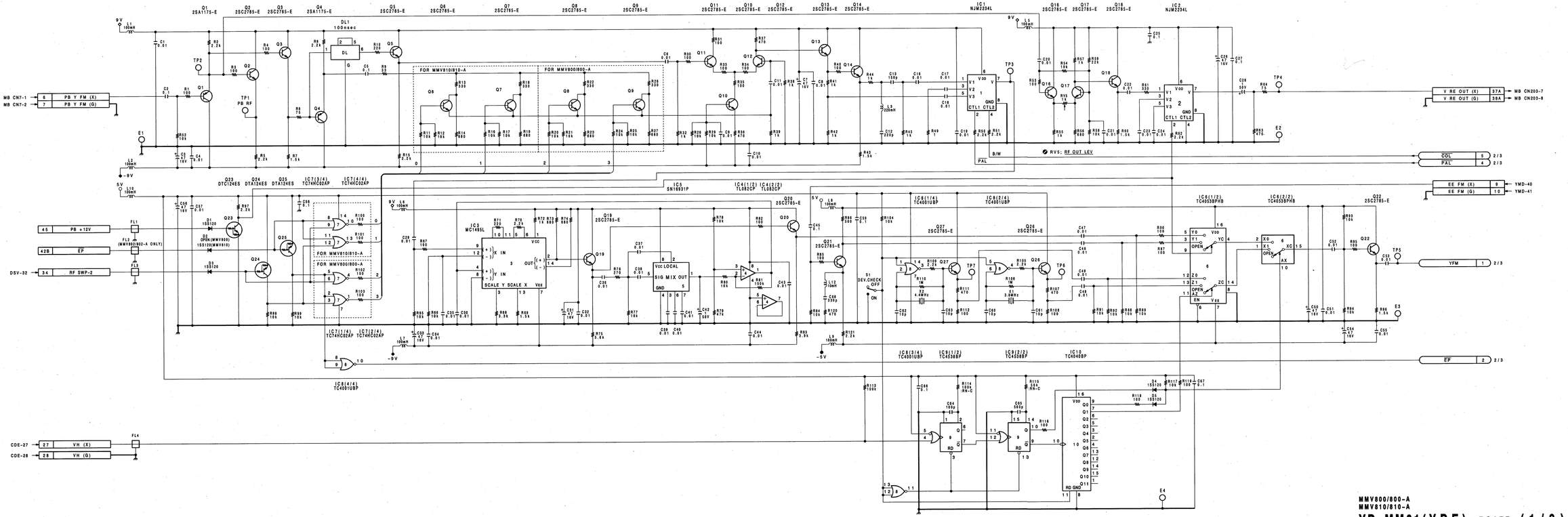
YD-MM01(YDE)(1/3) CARD RACK
CARD RACK YD-MM01(YDE)(1/3)

# YD-MM01(YDE) BOARD (1/3)

VIDEO Y DEMODULATOR

MMV800/800-A

MMV810/810-A





14-27
14-27

MMV800/800-A
MMV810/810-A
YD-MM01(YDE) BOARD (1/3)

CARD RACK YD-MM01(YDE)(2/3)

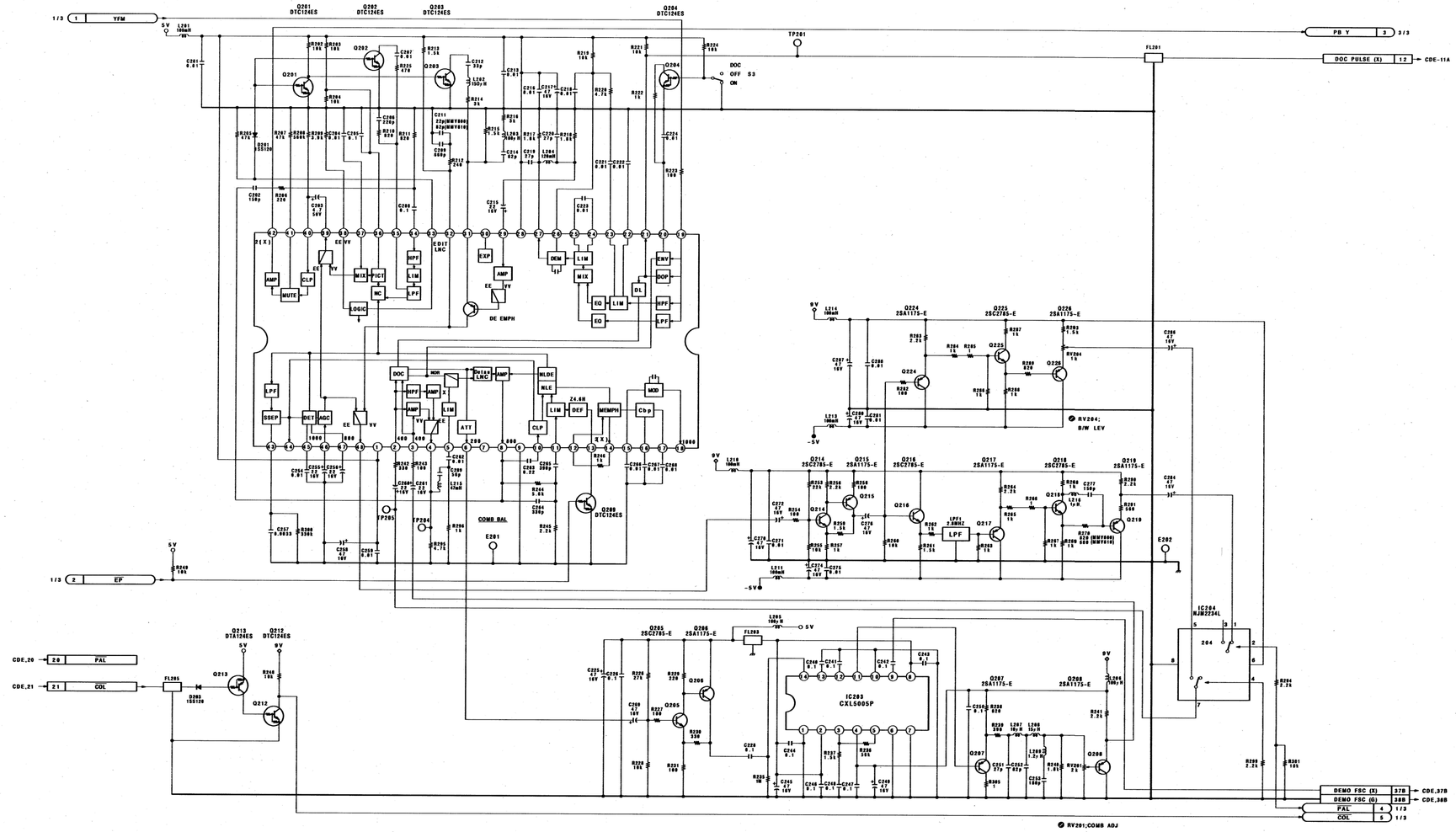
YD-MM01(YDE)(2/3) CARD RACK

# YD-MM01(YDE) BOARD (2/3)

VIDEO Y DEMODULATOR

MMV800/800-A

MMV810/810-A




MMV800/800-A
MMV810/810-A
YD-MM01(YDE) BOARD (2/3)



14-28

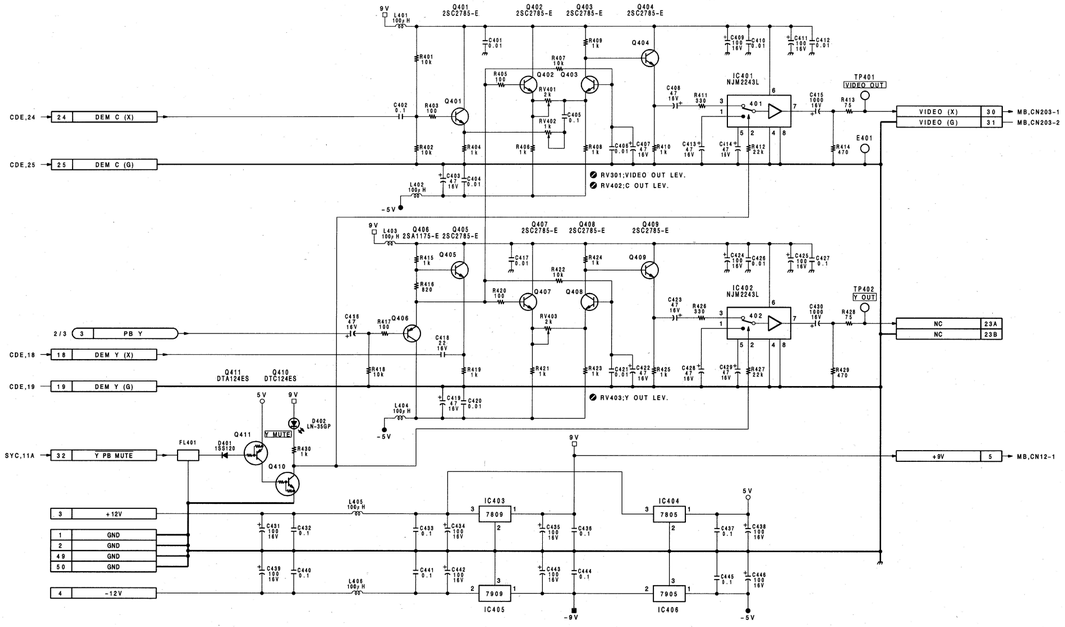
14-28

YD-MM01(YDE)(3/3) CARD RACK

# YD-MM01(YDE) BOARD (3/3)

## VIDEO Y DEMODULATOR

**MMV800/800-A**
**MMV810/810-A**




**MMV800/800-A**
**MMV810/810-A**

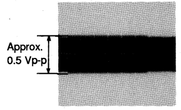
# YD-MM01(YDE) BOARD (3/3)



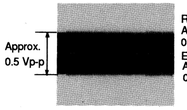
14-29

CARD RACK YD-MM01(YDE)(3/3)

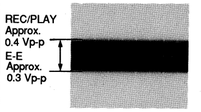
TP1, TP2
Input Signal: Color Bars
Mode: REC/PLAY



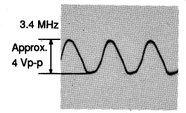

TP3
Input Signal: Color Bars
Mode: REC/PLAY



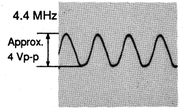

TP5
Input Signal: Color Bars



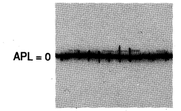

TP6
Switch Setting: S1 = ON



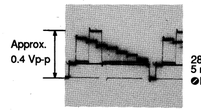

TP7
Switch Setting: S1 = ON



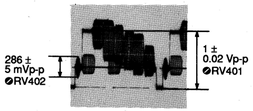

TP204
Input Signal: Color Bars
Mode: E-E




TP205
Input Signal: Color Bars
Mode: E-E




TP401
Input Signal: Color Bars
Mode: E-E

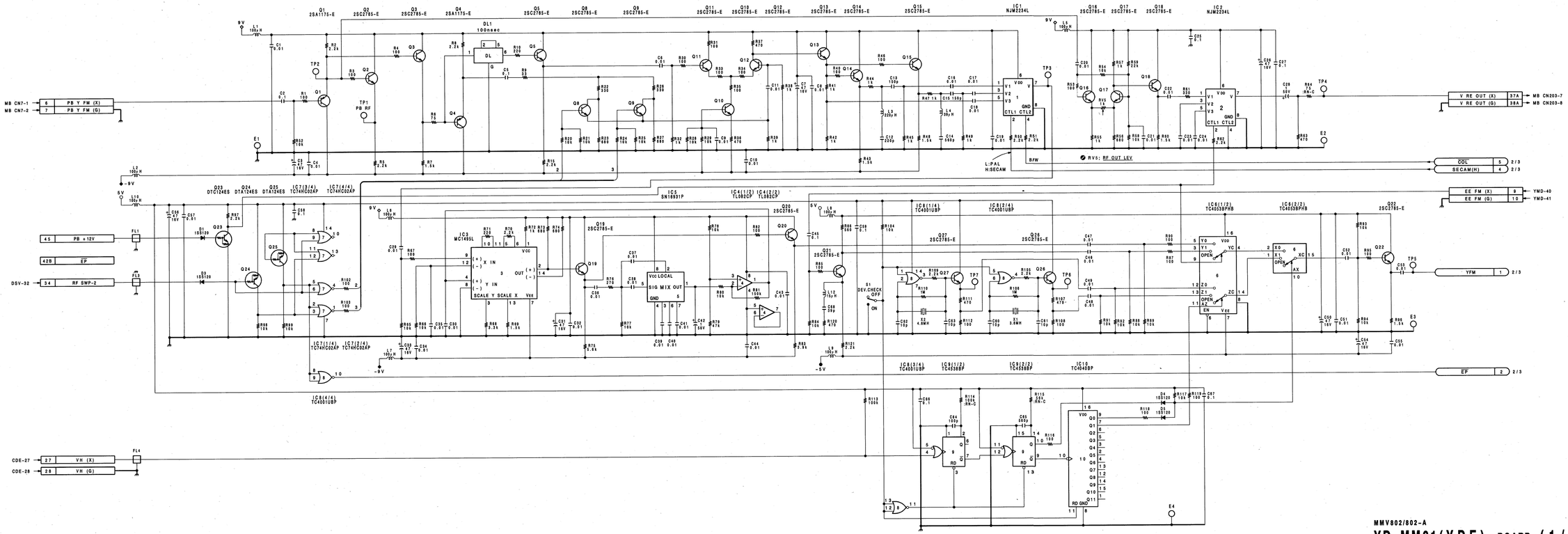



14-29

YD-MM01(YDE)(1/3) CARD RACK
CARD RACK YD-MM01(YDE)(1/3)

# YD-MM01(YDE) BOARD (1/3)

VIDEO Y DEMODULATOR
(FOR MMV802/802-A)




MMV802/802-A

YD-MM01(YDE) BOARD (1/3)

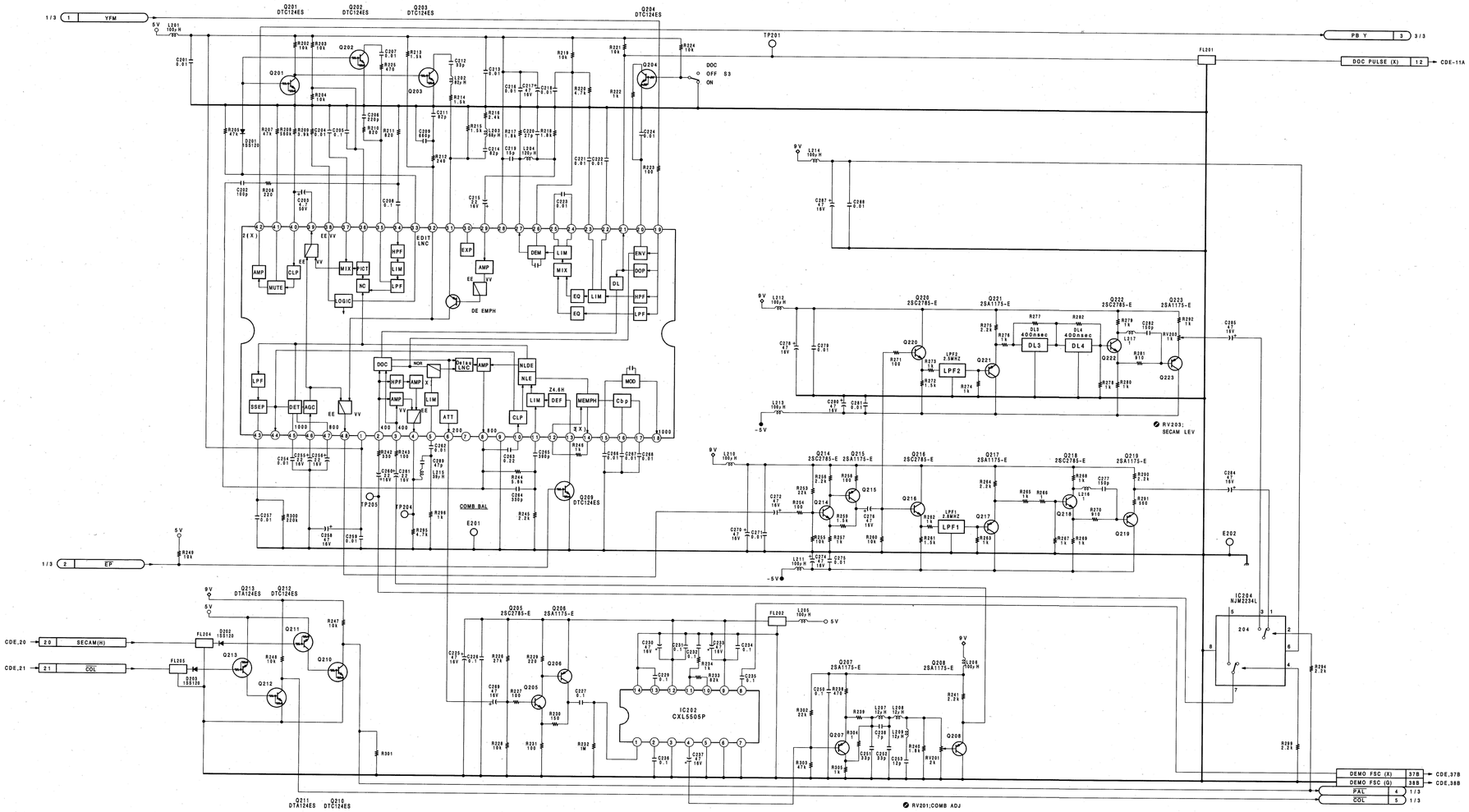

14-31
14-31

CARD RACK YD-MM01(YDE)(2/3)

YD-MM01(YDE)(2/3) CARD RACK

# YD-MM01(YDE) BOARD (2/3)

## VIDEO Y DEMODULATOR (FOR MMV802/802-A)






14-32

MMV802/802-A

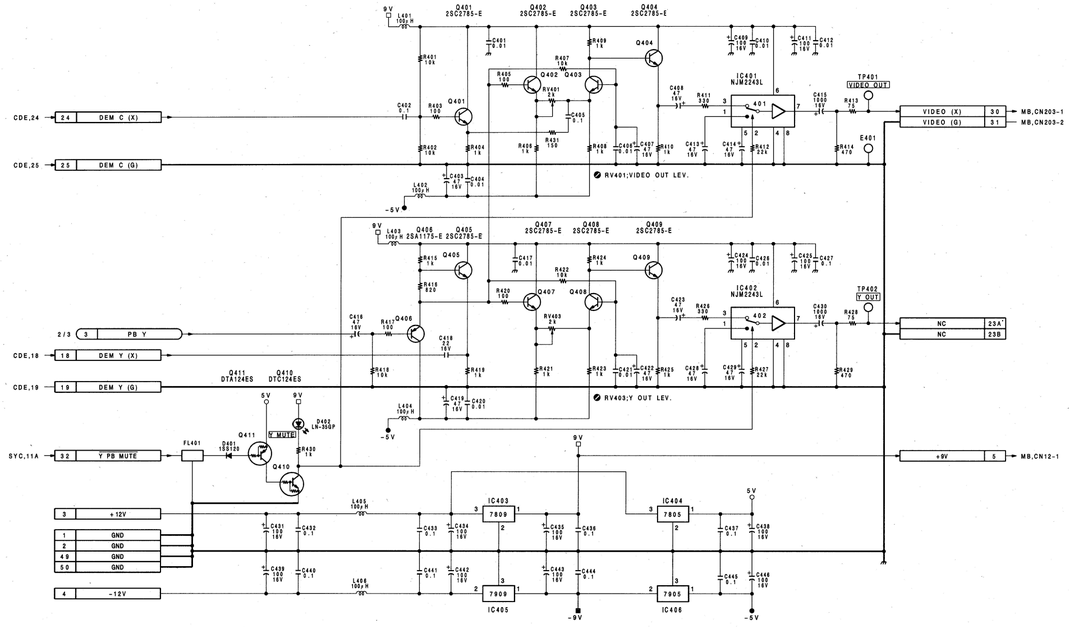
YD-MM01(YDE) BOARD (2/3)

14-32

YD-MM01(YDE)(3/3) CARD RACK

# YD-MM01(YDE) BOARD (3/3)

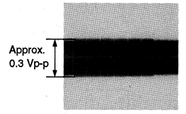
## VIDEO Y DEMODULATOR
## (FOR MMV802/802-A)



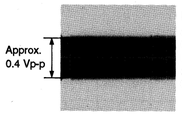

MMV802/802-A

YD-MM01(YDE) BOARD (3/3)

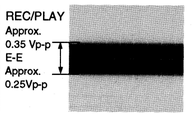
TP1, TP2
Input Signal: Color Bars
Mode: REC/PLAY



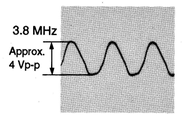

TP3
Input Signal: Color Bars
Mode: REC/PLAY



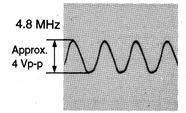

TP5
Input Signal: Color Bars



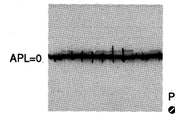

TP6
Switch Setting: S1=ON



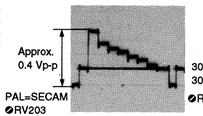

TP7
Switch Setting: S1=ON



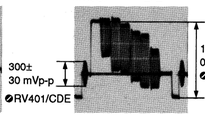

TP204
Input Signal: Color Bars
Mode: E-E




TP205
Input Signal: Color Bars
Mode: E-E




TP401
Input Signal: Color Bars
Mode: E-E





14-33
14-33

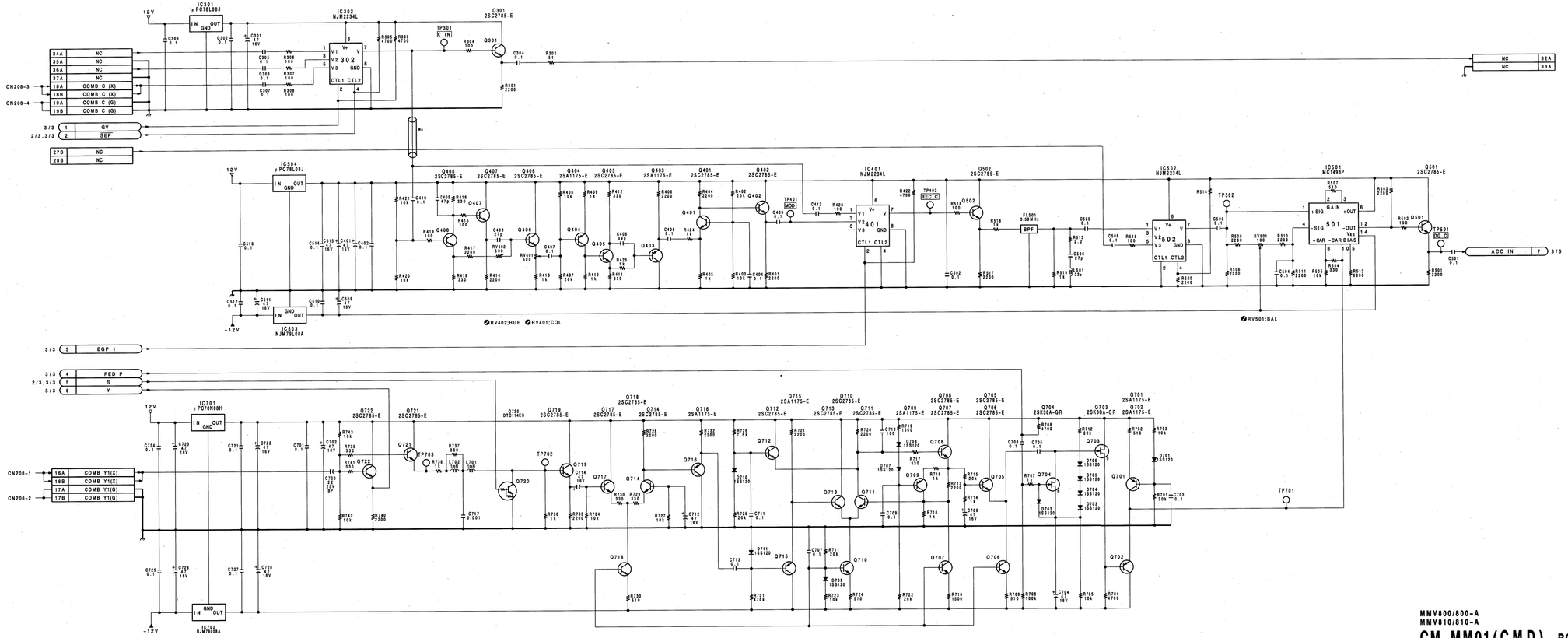
CARD RACK CM-MM01(CMD)(1/3)

CM-MM01(CMD)(1/3) CARD RACK

# CM-MM01(CMD) BOARD (1/3)

## VIDEO C MODULATOR

MMV800/800-A
MMV810/810-A




MMV800/800-A
MMV810/810-A
CM-MM01(CMD) BOARD (1/3)



14-34

14-34

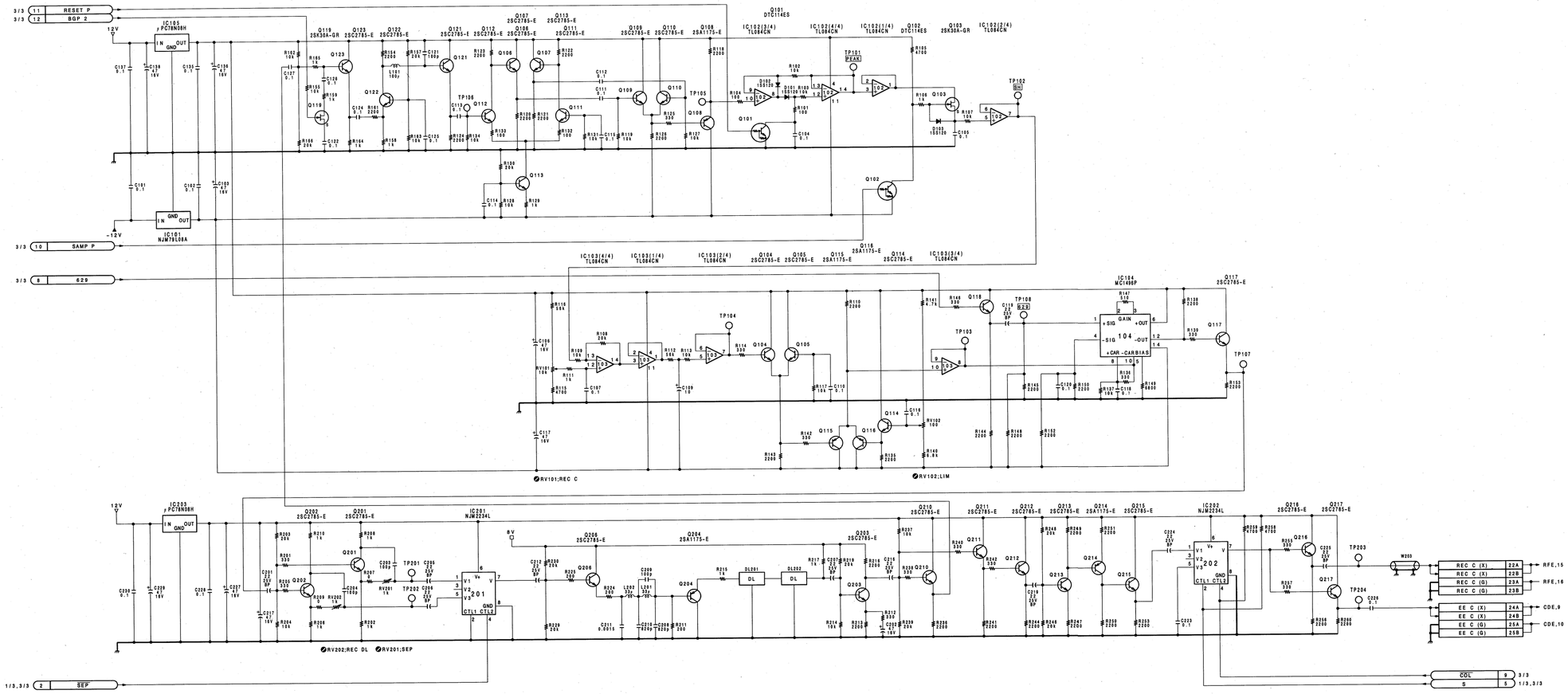
CARD RACK CM-MM01(CMD)(2/3)

# CM-MM01(CMD) BOARD (2/3)

VIDEO C MODULATOR

MMV800/800-A

MMV810/810-A




MMV800/800-A
MMV810/810-A

CM-MM01(CMD) BOARD (2/3)

CARD RACK CM-MM01(CMD)(3/3)

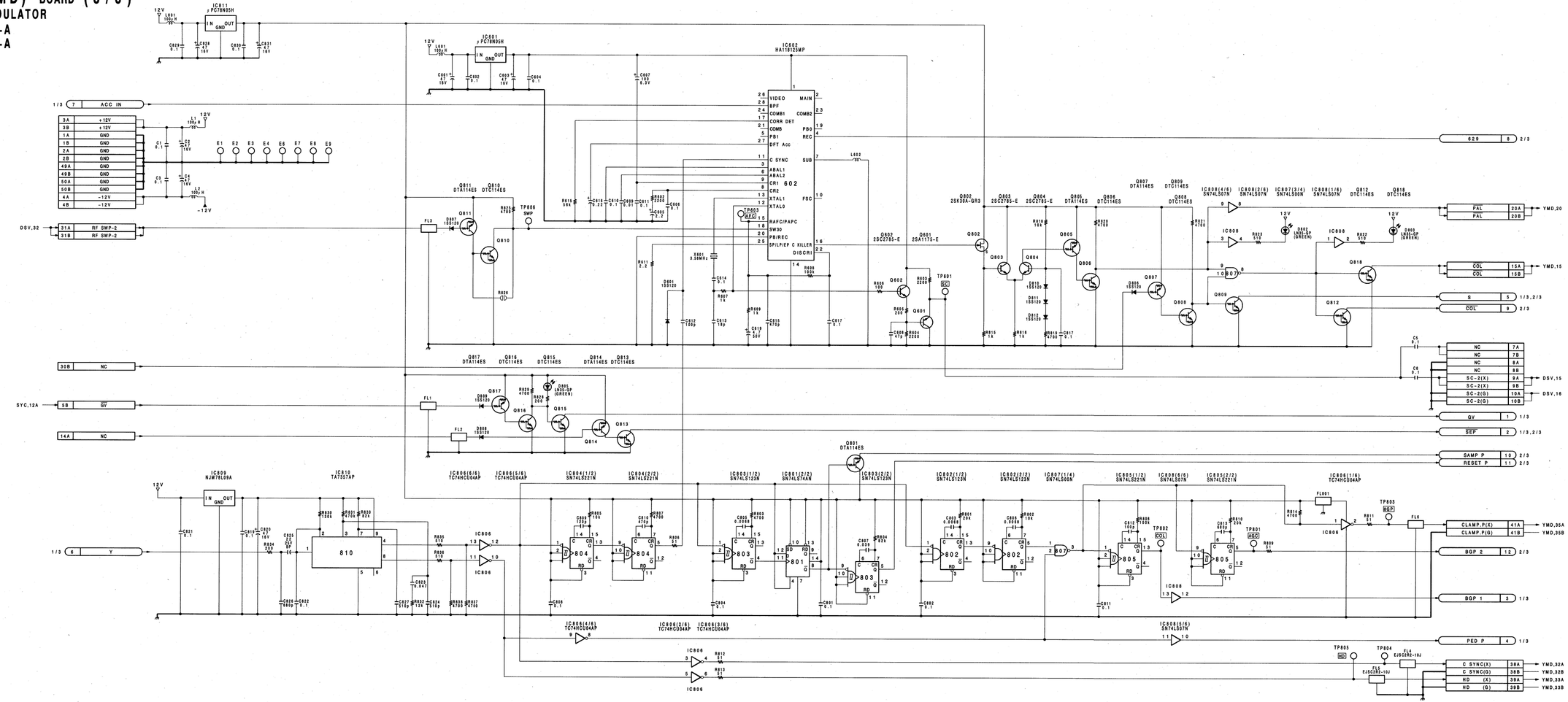
CM-MM01(CMD)(3/3) CARD RACK

# CM-MM01(CMD) BOARD (3/3)

VIDEO C MODULATOR

MMV800/800-A

MMV810/810-A




MMV800/800-A

MMV810/810-A

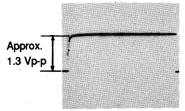
CM-MM01(CMD) BOARD (3/3)



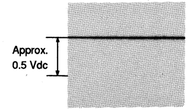
14-36

14-36

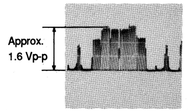
TP101
Input Signal: Color Bars
Mode: E-E



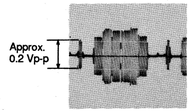

TP103
Input Signal: Color Bars
Mode: E-E



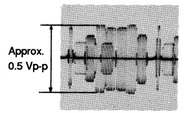

TP105
Input Signal: Color Bars
Mode: E-E



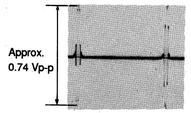

TP106
Input Signal: Color Bars
Mode: E-E



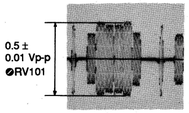

TP202
Input Signal: Color Bars
Mode: E-E



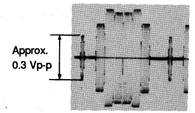

TP203
Input Signal: 50% White
Mode: E-E



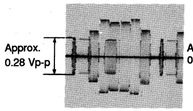

TP203
Input Signal: Color Bars
Mode: E-E



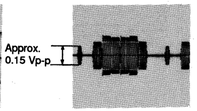

TP301
Input Signal: Color Bars
Mode: E-E



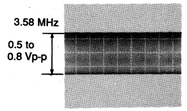

TP501
Input Signal: Color Bars
Mode: E-E



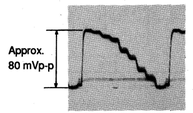

TP502
Input Signal: Color Bars
Mode: E-E



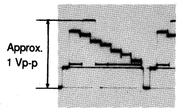

TP601
Input Signal: Color Bars
Mode: E-E



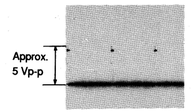

TP701
Input Signal: Color Bars
Mode: E-E



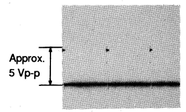

TP703
Input Signal: Color Bars
Mode: E-E




TP803
Input Signal: Color Bars
Mode: E-E




TP804/TP805
Input Signal: Color Bars
Mode: E-E






14-37

CARD RACK CM-MM01(CMD)

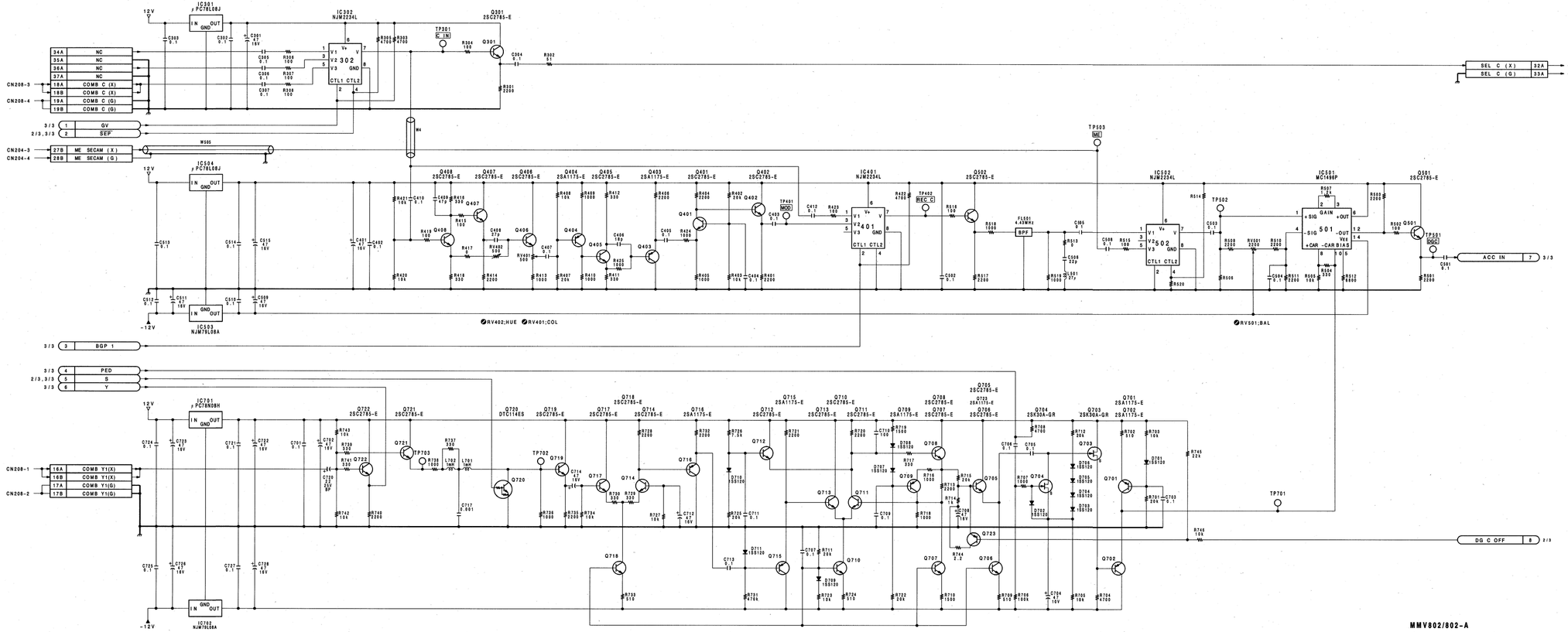
14-37

CARD RACK CM-MM02(CMD)(1/3)

CM-MM02(CMD)(1/3) CARD RACK

# CM-MM02(CMD) BOARD (1/3)

## PAL VIDEO C MODULATOR
## (FOR MMV802/802-A)




MMV802/802-A

## CM-MM02(CMD) BOARD (1/3)
For PAL



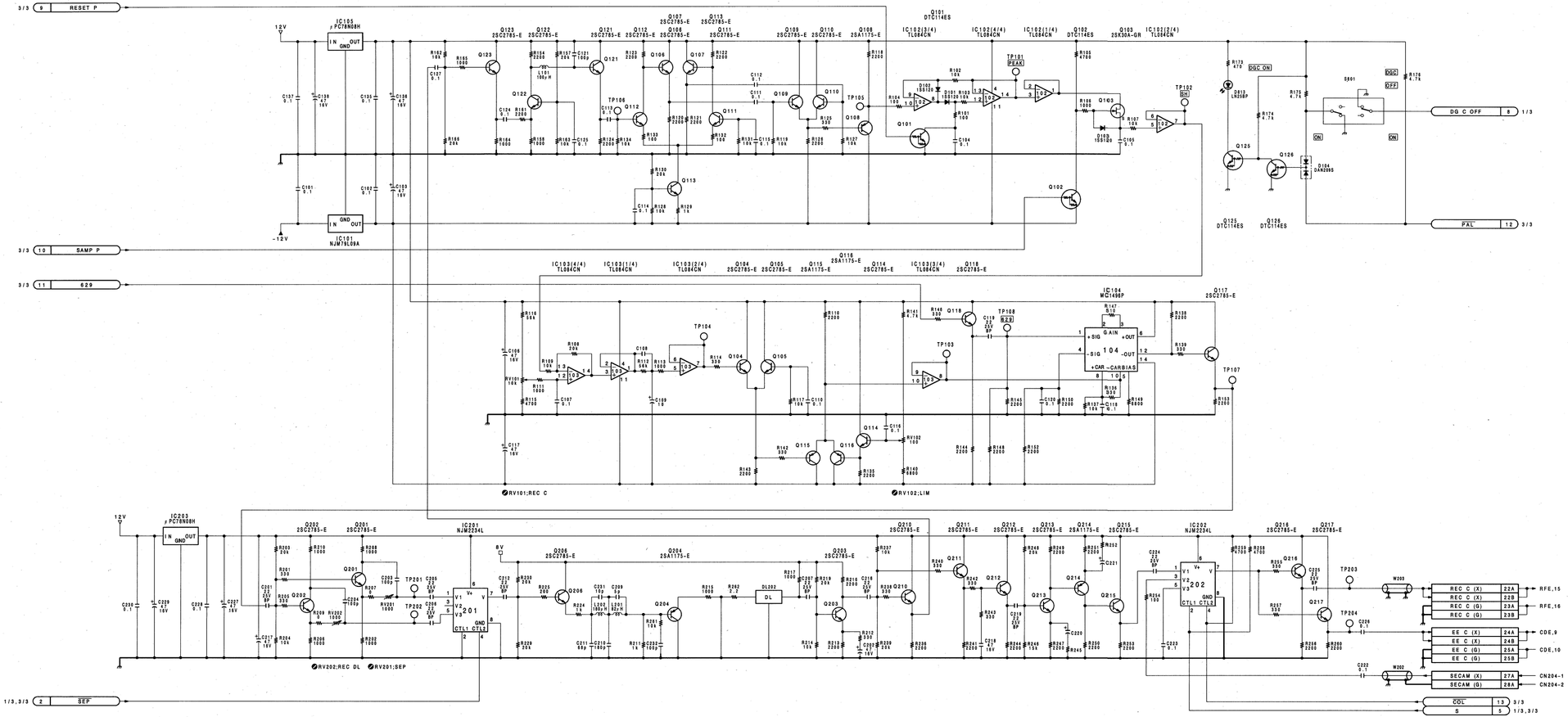
14-38

14-38

CARD RACK CM-MM02(CMD)(2/3)

# CM-MM02(CMD) BOARD (2/3)

## PAL VIDEO C MODULATOR (FOR MMV802/802-A)



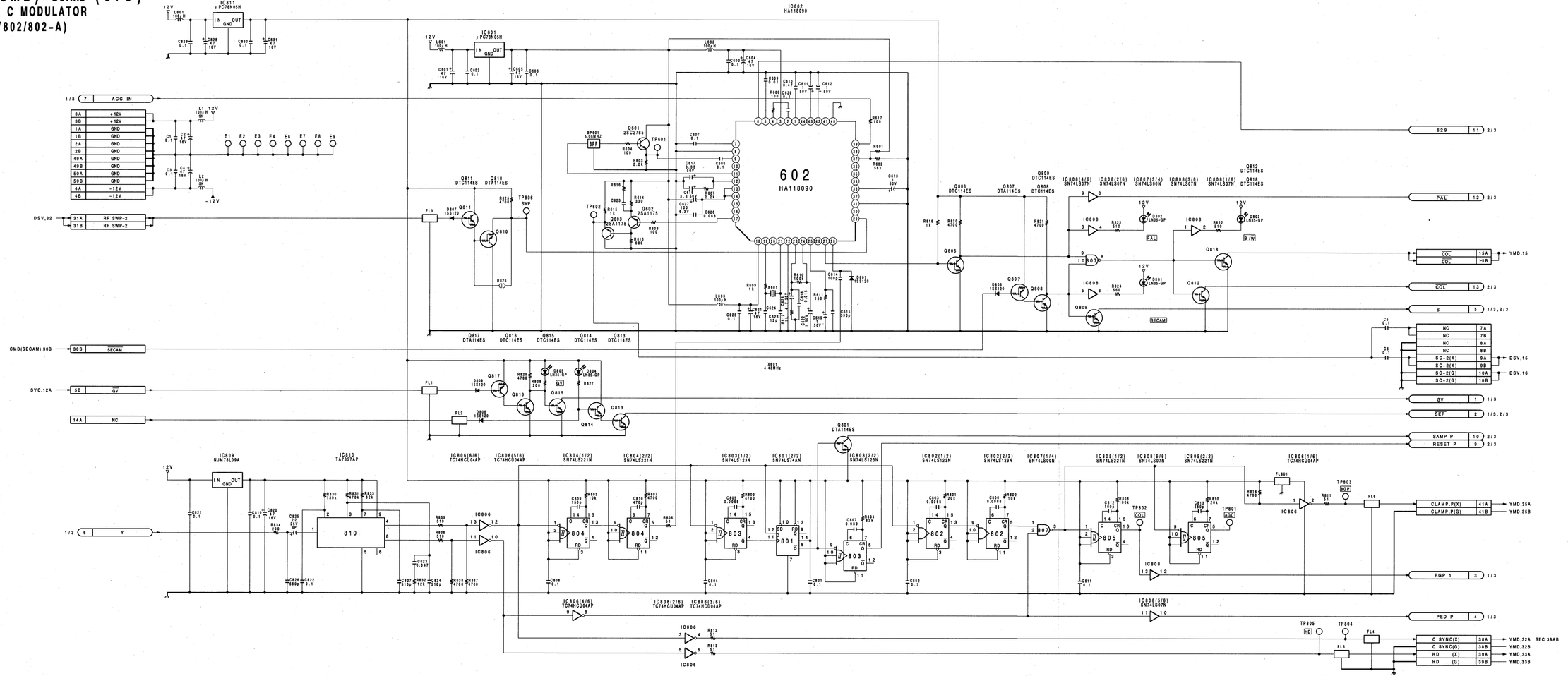

MMV802/802-A

## CM-MM02(CMD) BOARD (2/3) For PAL

CARD RACK CM-MM02(CMD)(3/3)
CM-MM02(CMD)(3/3) CARD RACK

# CM-MM02(CMD) BOARD (3/3)

## PAL VIDEO C MODULATOR (FOR MMV802/802-A)




MMV802/802-A

## CM-MM02(CMD) BOARD (3/3)

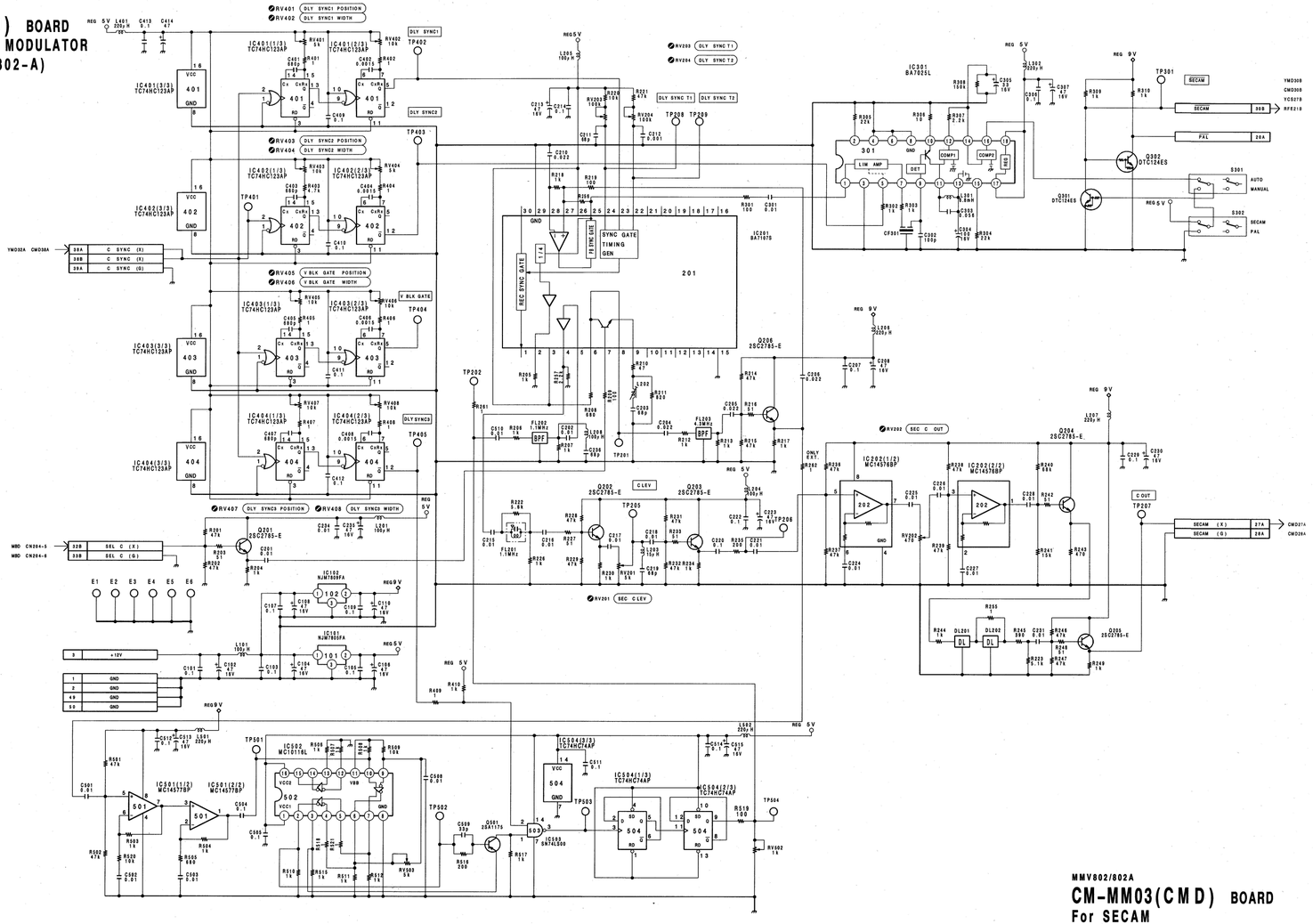
For PAL



14-40

14-40

# CM-MM03(CMD) BOARD
## SECAM VIDEO C MODULATOR
## (FOR MMV802/802-A)




MMV802/802A

# CM-MM03(CMD) BOARD
## For SECAM

## CM-MM02 BOARD(PAL)

**TP101**
Input Signal: Color Bars
Mode: E-E
Approx. 1.3 Vp-p

**TP103**
Input Signal: Color Bars
Mode: E-E
Approx. 1.5 Vdc

**TP105**
Input Signal: Color Bars
Mode: E-E
Approx. 1.6 Vp-p

**TP106**
Input Signal: Color Bars
Mode: E-E
Approx. 0.2 Vp-p

**TP202**
Input Signal: Color Bars
Mode: E-E
Approx. 0.5 Vp-p

**TP203**
Input Signal: 50% White
Mode: E-E
Approx. 0.2 Vp-p

**TP203**
Input Signal: Color Bars(PAL)
Mode: E-E
0.25 ±0.005 Vp-p
RV101

**TP301**
Input Signal: Color Bars
Mode: E-E
Approx. 0.33 Vp-p

**TP501**
Input Signal: Color Bars
Mode: E-E
Approx. 0.12 Vp-p

**TP502**
Input Signal: Color Bars
Mode: E-E
Approx. 0.12 Vp-p

**TP601**
Input Signal: Color Bars
Mode: E-E
5.06 MHz
Approx. 0.2 Vp-p

**TP602**
Input Signal: Color Bars
Mode: E-E
4.43 MHz
0.5 to 0.8 Vp-p

**TP701**
Input Signal: Color Bars
Mode: E-E
SW S801 ON
Approx. 80m Vp-p
PAL ONLY

**TP703**
Input Signal: Color Bars
Mode: E-E
Approx. 1 Vp-p

**TP803**
Input Signal: Color Bars
Mode: E-E
Approx. 5 Vp-p

**TP804/TP805**
Input Signal: Color Bars
Mode: E-E
Approx. 5 Vp-p

## CM-MM03(SECAM)

**TP203**
Input Signal: Color Bars(SECAM)
Mode: E-E
0.4±0.01 Vp-p
RV201/CMD (SECAM)

CARD RACK YM-MM01(YMD)(1/3) YM-MM01(YMD)(1/3) CARD RACK

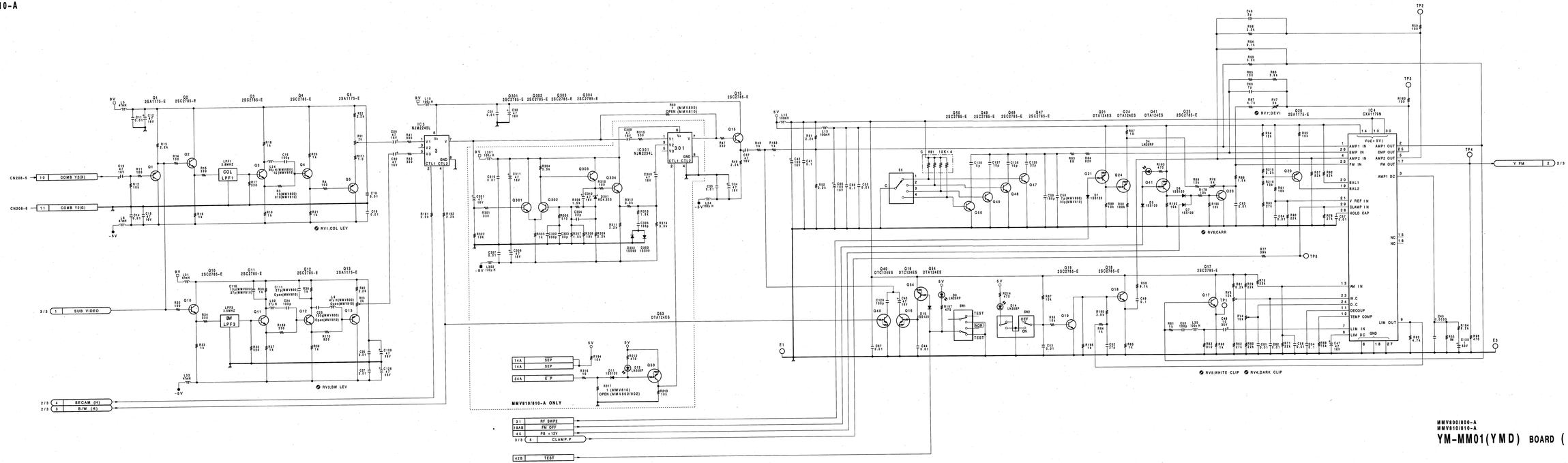
CARD RACK YM-MM01(YMD)(1/3) YM-MM01(YMD)(1/3) CARD RACK

# YM-MM01(YMD) BOARD (1/3)

VIDEO Y MODULATOR

MMV800/800-A

MMV810/810-A




MMV800/800-A
MMV810/810-A
YM-MM01(YMD) BOARD (1/3)



14-43

14-43

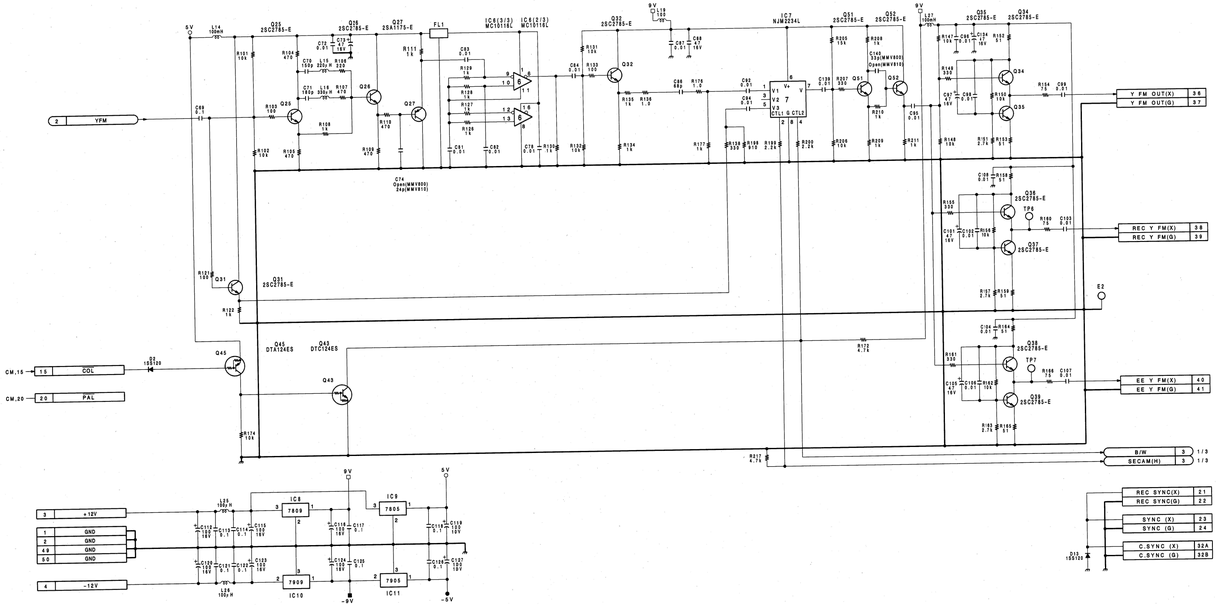
14-43

## YM-MM01(YMD) BOARD (2/3)

VIDEO Y MODULATOR

MMV800/800-A

MMV810/810-A




MMV800/800-A
MMV810/810-A
YM-MM01(YMD) BOARD (2/3)



14-44

14-44

14-44

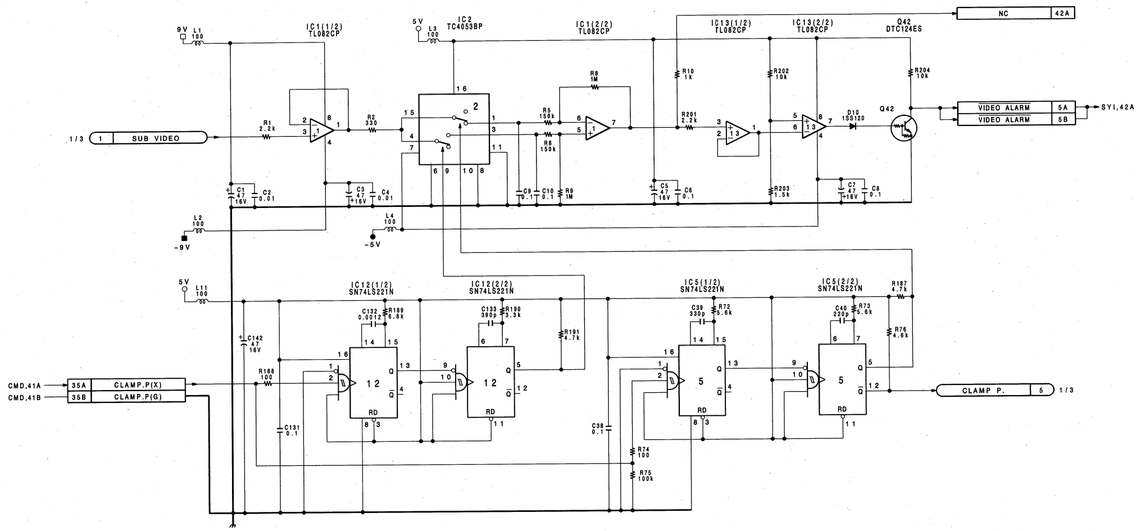
YM-MM01(YMD)(3/3) CARD RACK

# YM-MM01(YMD) BOARD (3/3)

VIDEO Y MODULATOR

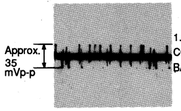
MMV800/800-A

MMV810/810-A

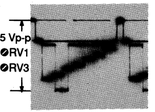



MMV800/800-A
MMV810/810-A
YM-MM01(YMD) BOARD (3/3)

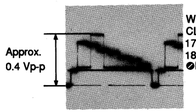
Q18-Base
Input Signal: Color Bars
Mode: E-E
Switch Setting: S2 (ENH) = ON



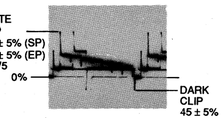

TP1
Input Signal: Color Bars
Mode: E-E



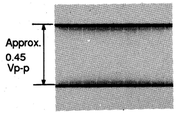

TP2
Input Signal: Color Bars
Mode: E-E



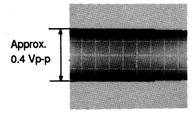

TP3
Input Signal: Color Bars
Mode: E-E



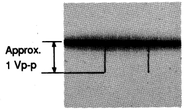

TP4
Input Signal: Color Bars
Mode: E-E




TP7
Input Signal: Color Bars
Mode: E-E




TP8
Input Signal: Color Bars
Mode: E-E



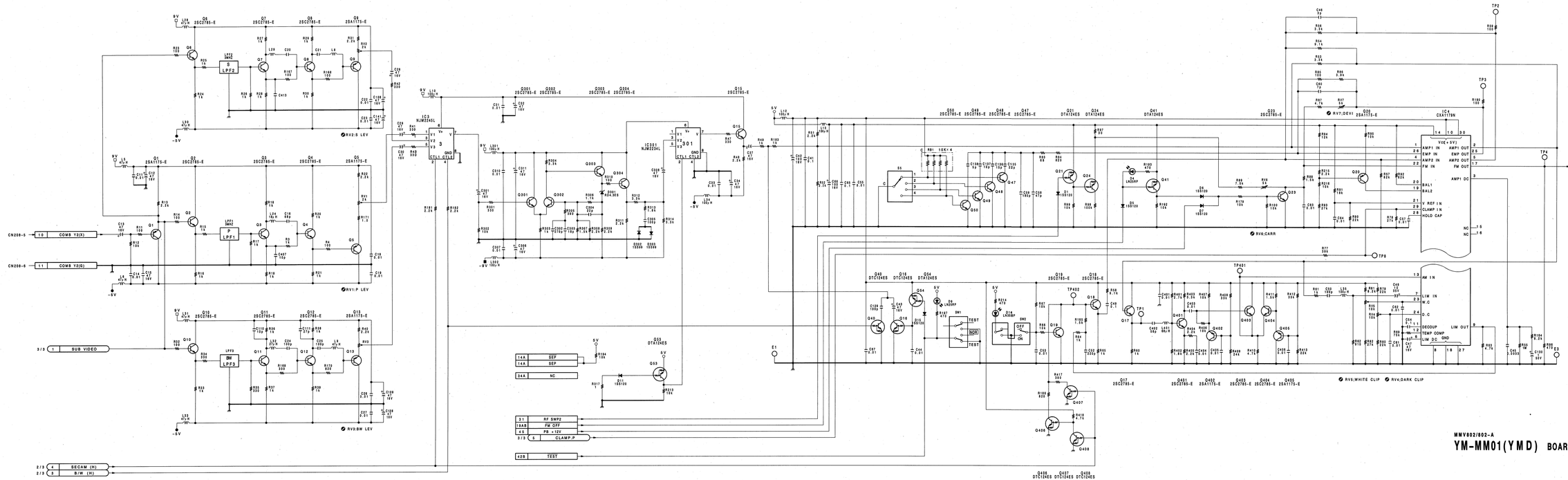



14-45

14-45

# YM-MM01(YMD) BOARD (1/3)

VIDEO Y MODULATOR
(FOR MMV802/802-A)






14-47

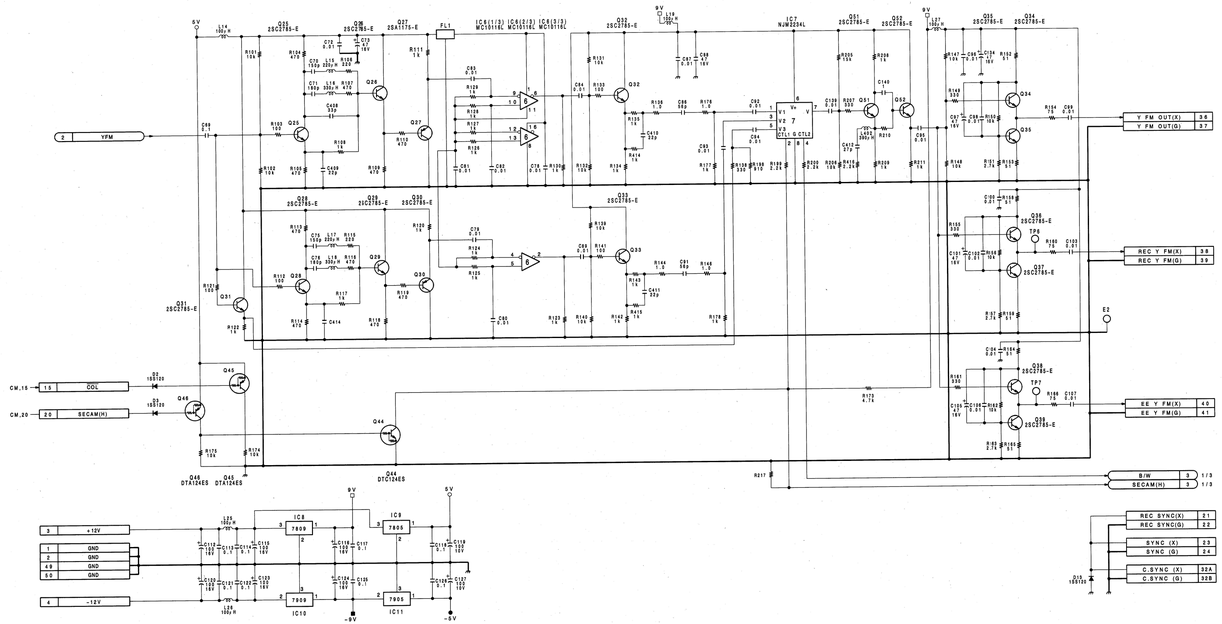
14-47

14-47

CARD RACK YM-MM01(YMD)(1/3) YM-MM01(YMD)(1/3) CARD RACK

MMV802/802-A
YM-MM01(YMD) BOARD (1/3)

## YM-MM01(YMD) BOARD (2/3)
VIDEO Y MODULATOR
(FOR MMV802/802-A)



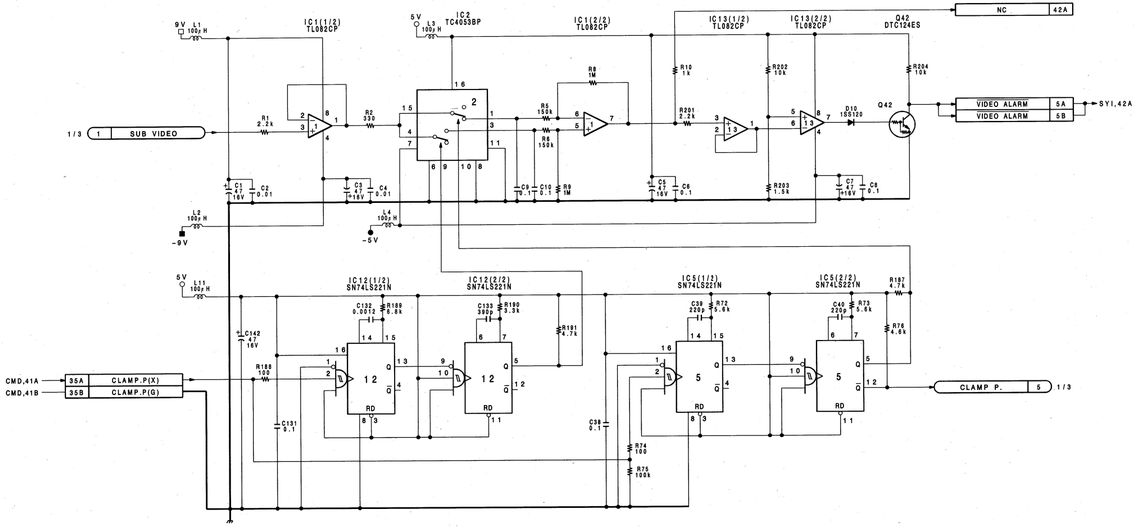

MMV802/802-A
YM-MM01(YMD) BOARD (2/3)


14-48
14-48
14-48

YM-MM01(YMD)(3/3) CARD RACK

# YM-MM01(YMD) BOARD (3/3)

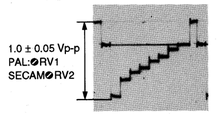
## VIDEO Y MODULATOR
## (FOR MMV802/802-A)



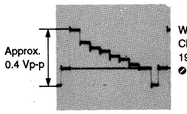

MMV802/802-A

## YM-MM01(YMD) BOARD (3/3)

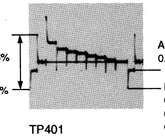
TP1
Input Signal: Color Bars
Mode: E-E



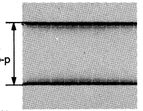

TP2
Input Signal: Color Bars
Mode: E-E



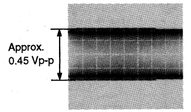

TP3
Input Signal: Color Bars
Mode: E-E



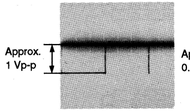

TP4
Input Signal: Color Bars
Mode: E-E



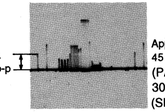
TP7
Input Signal: Color Bars
Mode: E-E



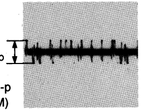

TP8
Input Signal: Color Bars
Mode: E-E




TP401
Input Signal: Multi Burst
Mode: E-E




TP402
Input Signal: Color Bars
Mode: E-E
Switch Setting: S2(ENH)=ON





14-49
14-49

CARD RACK EQ-MM01(RFE)(1/3)

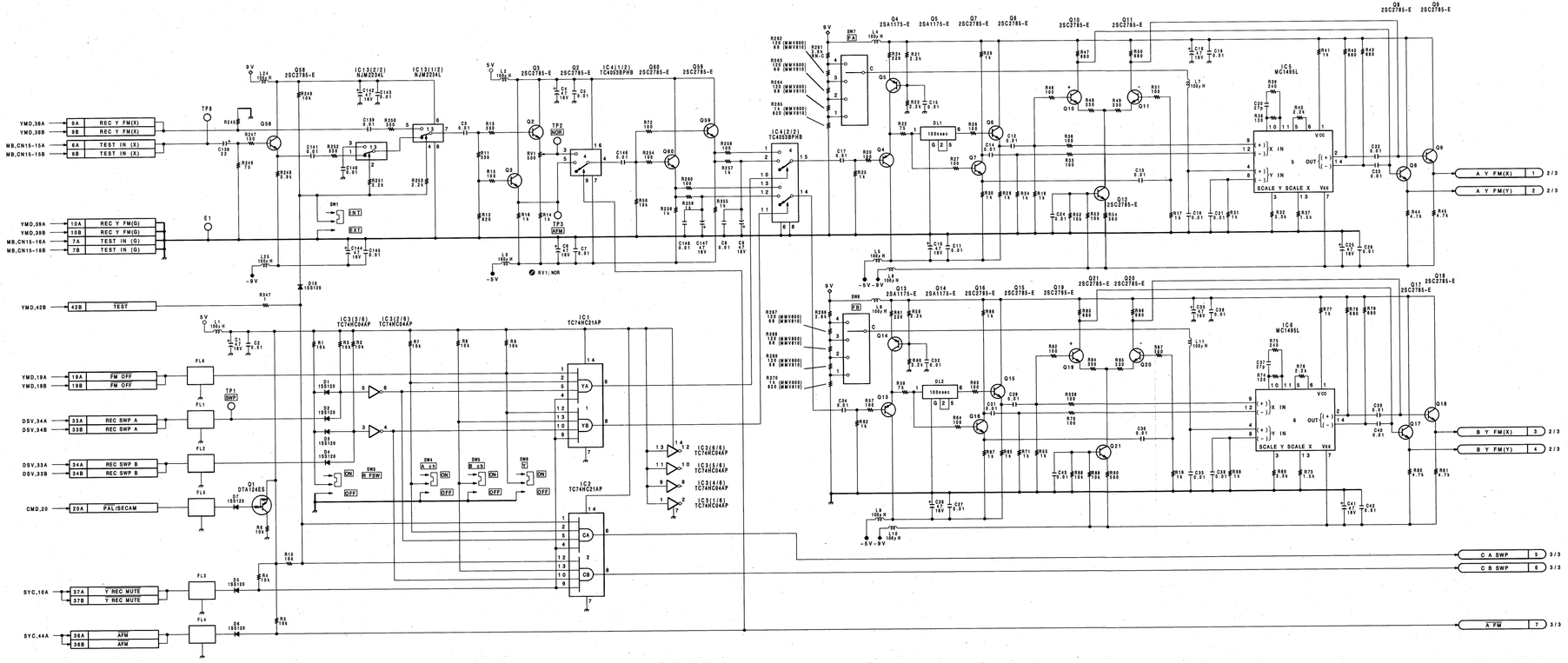
EQ-MM01(RFE)(1/3) CARD RACK

# EQ-MM01(RFE) BOARD (1/3)

VIDEO RF EQUARIZER

MMV800/800-A

MMV810/810-A




MMV800/800-A
MMV810/810-A
EQ-MM01(RFE) BOARD (1/3)



14-50

14-50

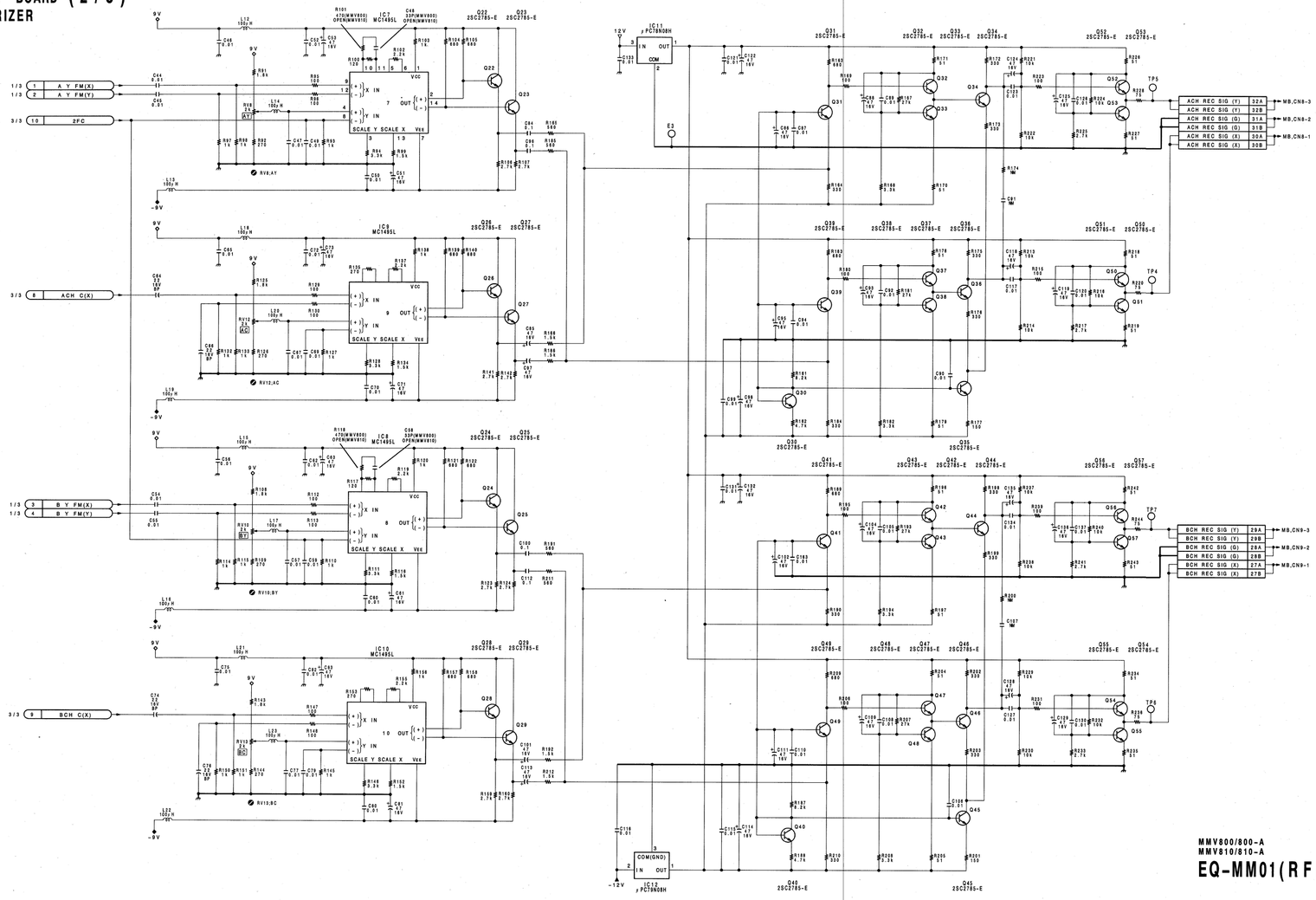
EQ-MM01(RFE)(2/3) CARD RACK
CARD RACK EQ-MM01(RFE)(2/3)

# EQ-MM01(RFE) BOARD (2/3)

VIDEO RF EQUARIZER

MMV800/800-A

MMV810/810-A




MMV800/800-A
MMV810/810-A

EQ-MM01(RFE) BOARD (2/3)

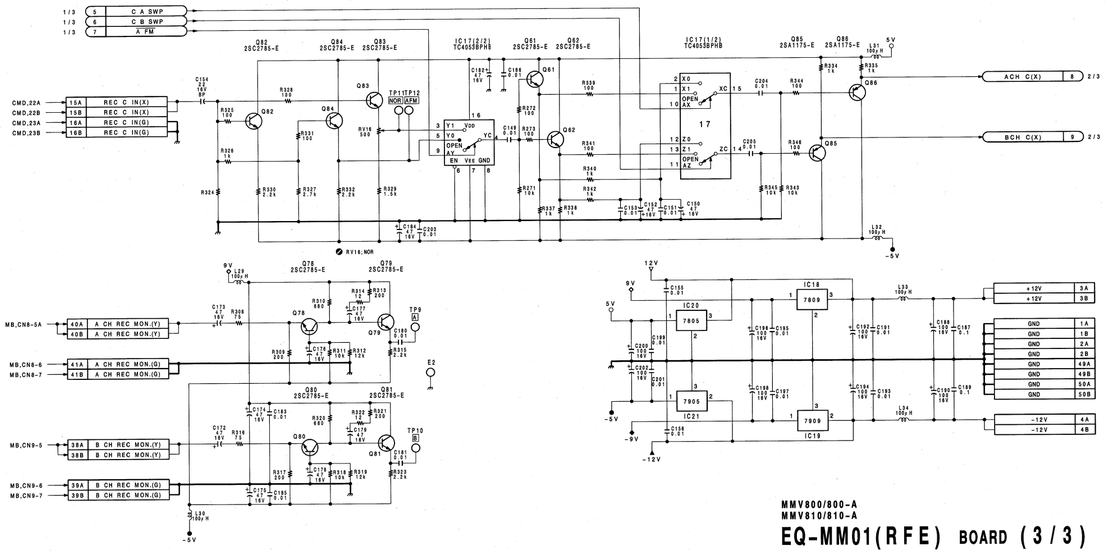

14-51
14-51

# EQ-MM01(RFE) BOARD (3/3)

VIDEO RF EQUARIZER

MMV800/800-A

MMV810/810-A




MMV800/800-A

MMV810/810-A

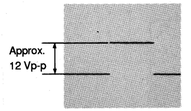
## EQ-MM01(RFE) BOARD (3/3)



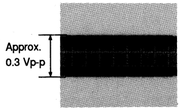
CARD RACK EQ-MM01(RFE)(3/3)

EQ-MM01(RFE)(3/3) CARD RACK

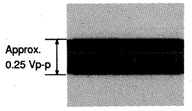
TP1
Input Signal: Color Bars
Mode: REC



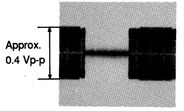

TP2
Input Signal: Color Bars
Mode: E-E



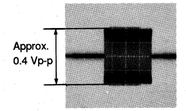

TP3
Input Signal: Color Bars
Mode: E-E



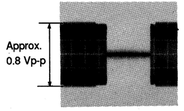

TP4, TP5
Input Signal: Color Bars
Mode: REC



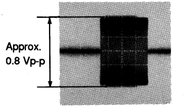

TP6, TP7
Input Signal: Color Bars
Mode: REC



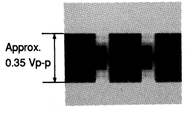

TP9
Input Signal: Color Bars
Mode: REC



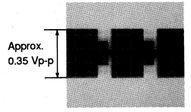

TP10
Input Signal: Color Bars
Mode: REC




TP11
Input Signal: Color Bars
Mode: E-E




TP12
Input Signal: Color Bars
Mode: E-E





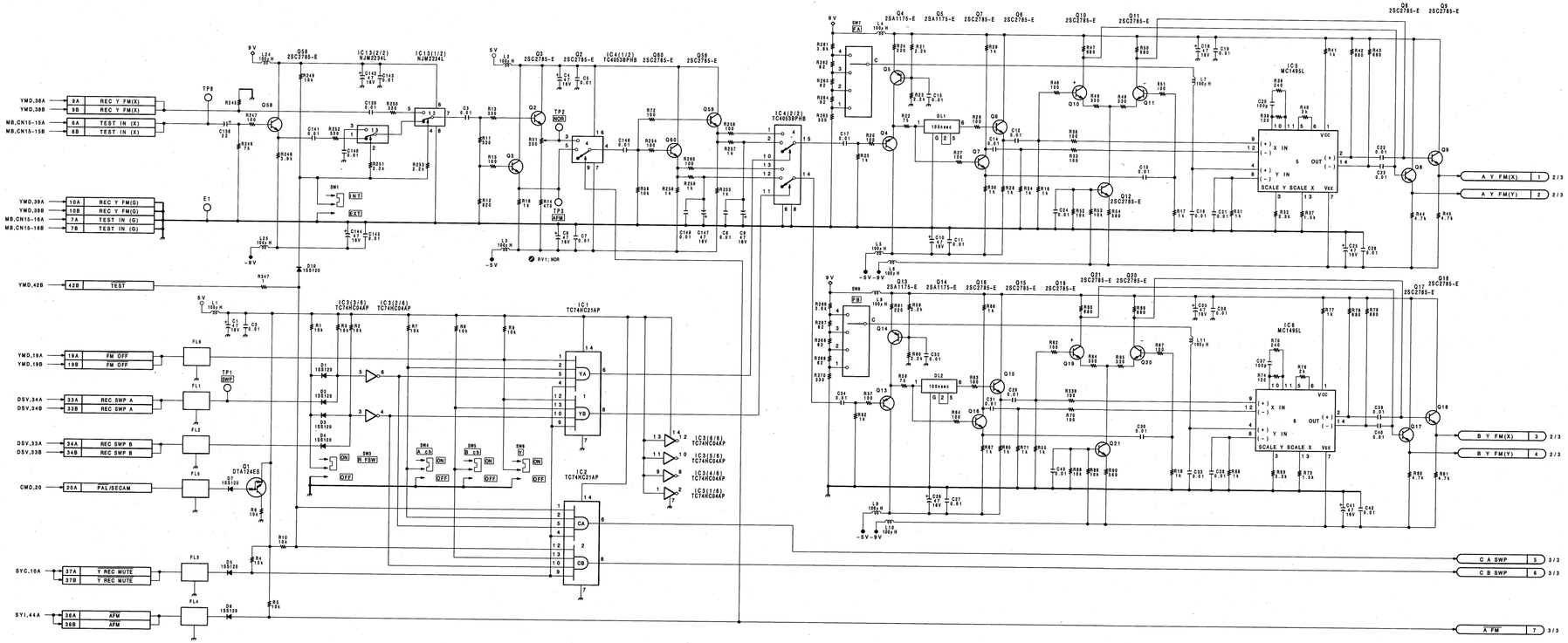

14-52

CARD RACK EQ-MM01(RFE)(1/3)

EQ-MM01(RFE)(1/3) CARD RACK

# EQ-MM01(RFE) BOARD (1/3)

VIDEO RF EQUARIZER
(FOR MMV802/802-A)






14-54

MMV802/802-A

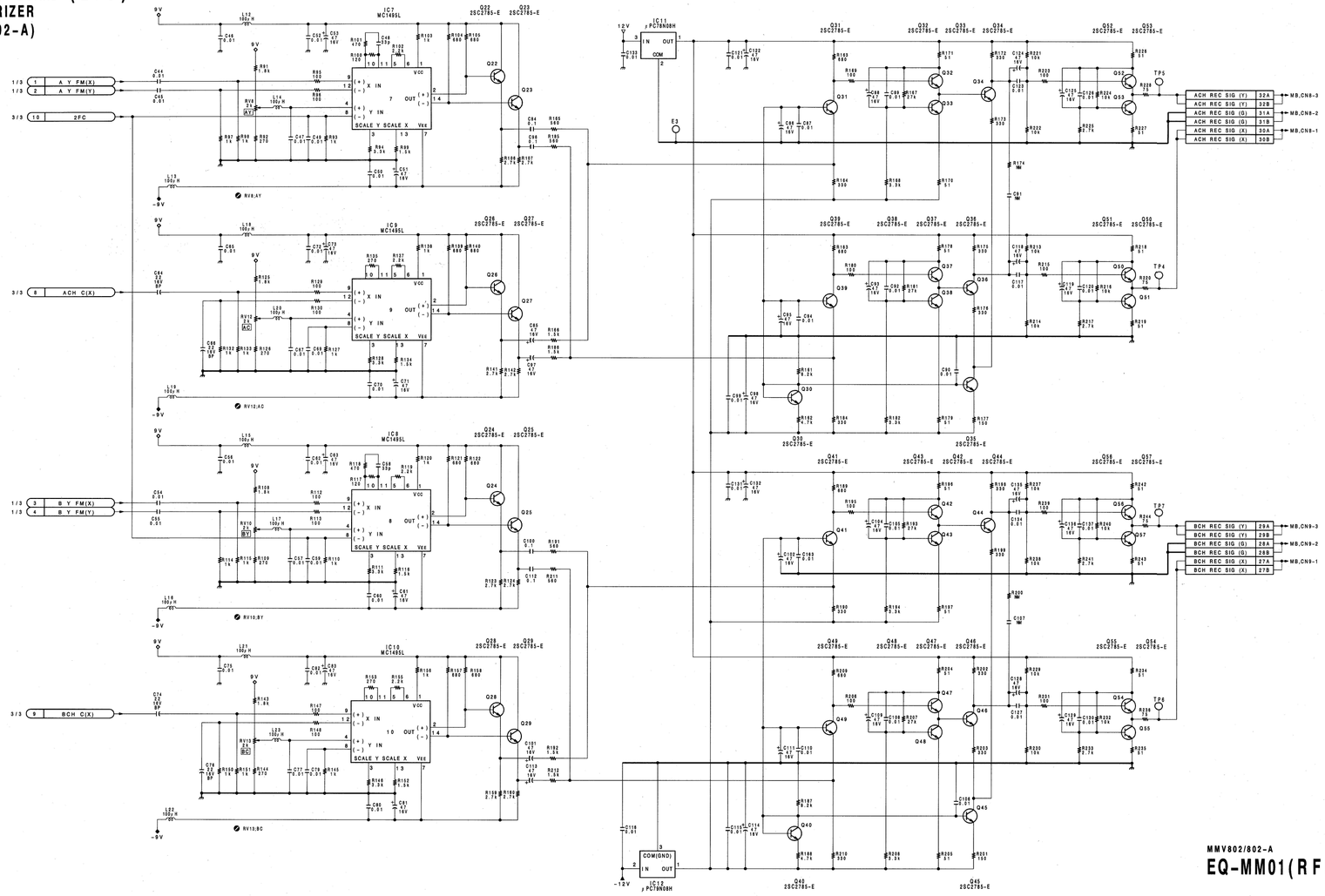
EQ-MM01(RFE) BOARD (1/3)

14-54

EQ-MM01(RFE)(2/3) CARD RACK
CARD RACK EQ-MM01(RFE)(2/3)

# EQ-MM01(RFE) BOARD (2/3)

VIDEO RF EQUARIZER
(FOR MMV802/802-A)



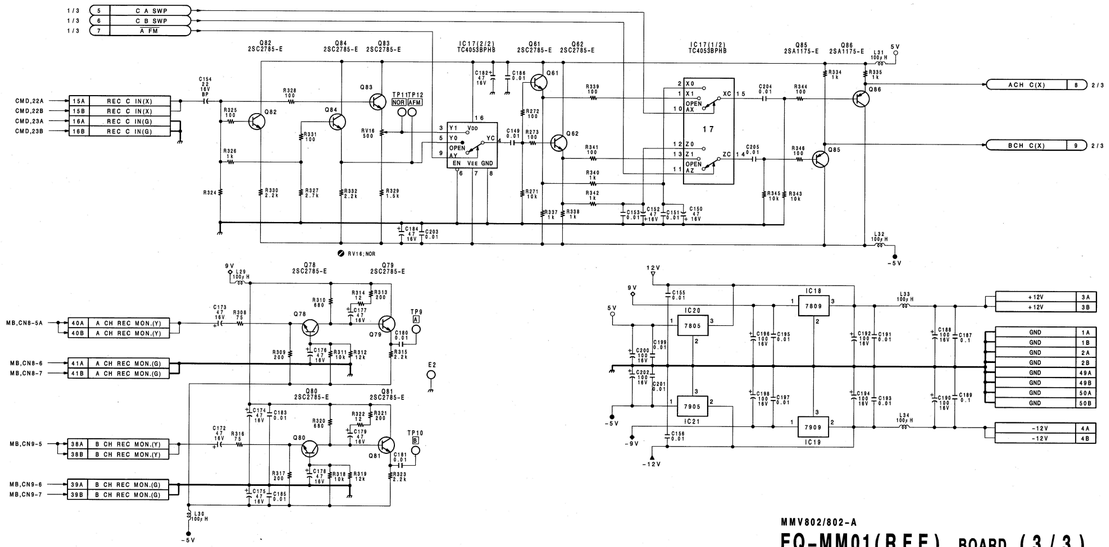

MMV802/802-A

EQ-MM01(RFE) BOARD (2/3)


14-55
14-55

# EQ-MM01(RFE) BOARD (3/3)

VIDEO RF EQUARIZER
(FOR MMV802/802-A)



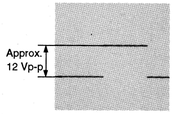

MMV802/802-A

EQ-MM01(RFE) BOARD (3/3)

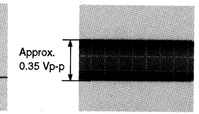


CARD RACK EQ-MM01(RFE)(3/3)
EQ-MM01(RFE)(3/3) CARD RACK

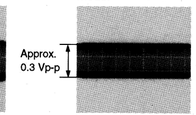
TP1
Input Signal: Color Bars
Mode: REC



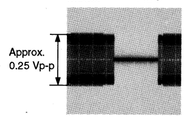

TP2
Input Signal: Color Bars
Mode: E-E



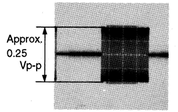

TP3
Input Signal: Color Bars
Mode: E-E



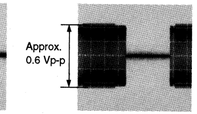

TP4,TP5
Input Signal: Color Bars
Mode: REC



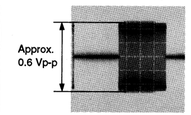

TP6,TP7
Input Signal: Color Bars
Mode: REC



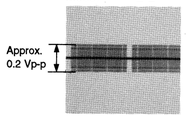

TP9
Input Signal: Color Bars
Mode: REC



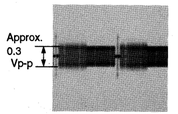

TP10
Input Signal: Color Bars
Mode: REC




TP11,TP12
Input Signal: Color Bars(PAL)
Mode: E-E



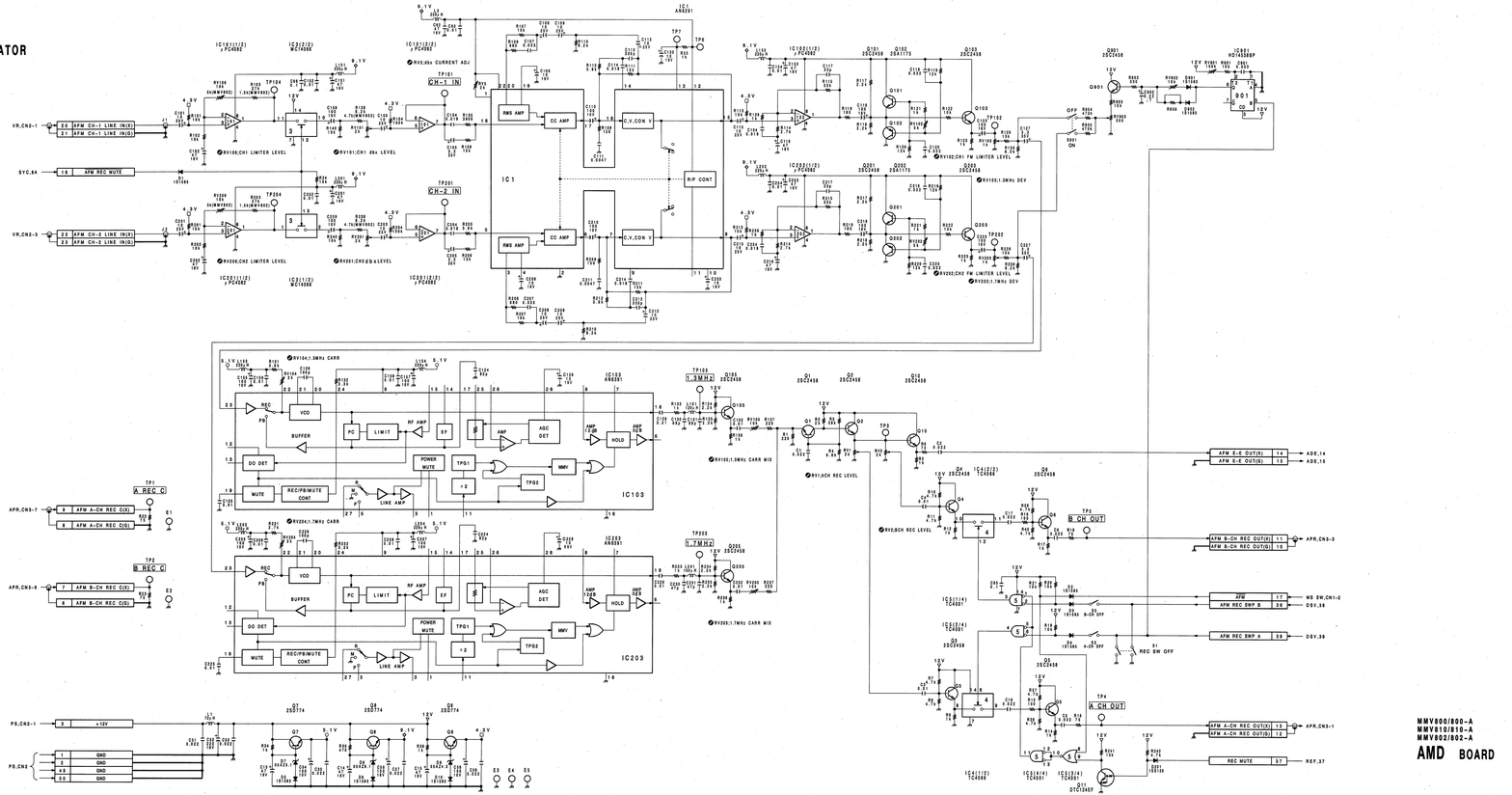

TP11,TP12
Input Signal: Color Bars(SECAM)
Mode: E-E






14-56

# AMD BOARD
## AUDIO MODULATOR






14-57

CARD RACK AMD — AMD CARD RACK

14-57

MMV900/800-A
MMV810/810-A
MMV802/802-A

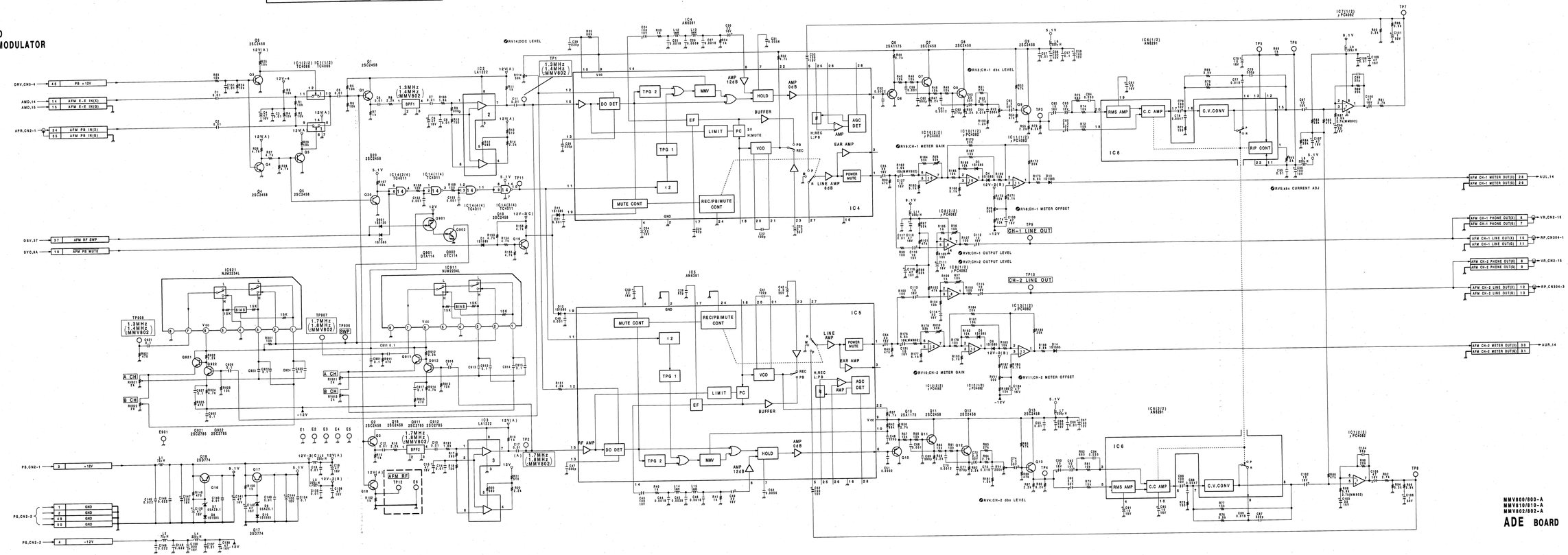
AMD BOARD

14-57

CARD RACK ADE

ADE CARD RACK

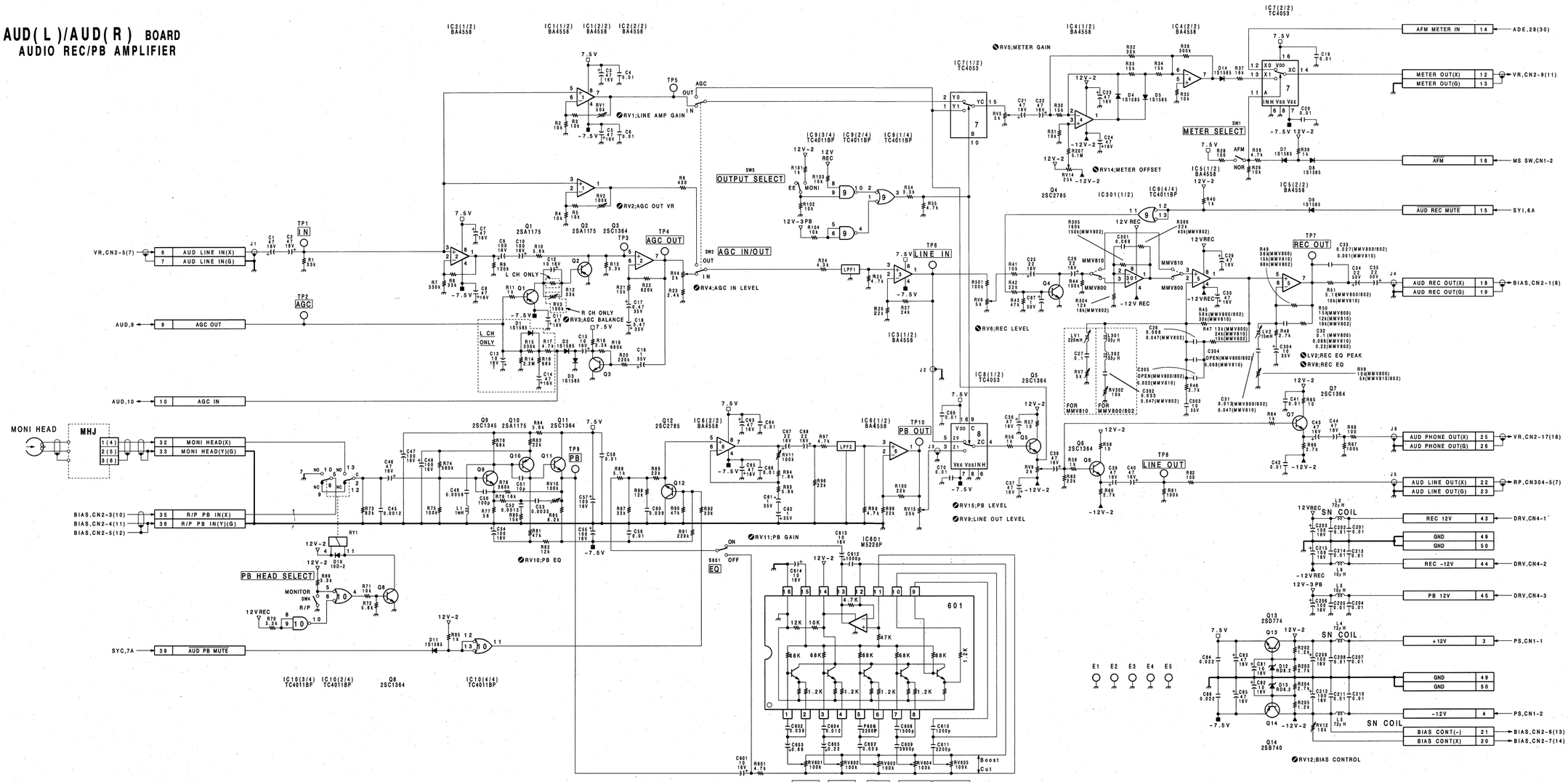
# ADE BOARD
## AUDIO DEMODULATOR





14-58
14-58
14-58

# AUD(L)/AUD(R) BOARD
## AUDIO REC/PB AMPLIFIER




MMV800/800-A
MMV810/810-A
MMV802/802-A

# AUD(L)/AUD(R) BOARD

CARD RACK MB-MM01(MBD)(1/5) MB-MM01(MBD)(1/5) CARD RACK

# MB-MM01(MBD) BOARD (1/5)
## MOTHER BOARD

TO DRV CN1

**CN1**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | TB PL-1 | SYI | 6B |
| 2 | TB PL-2 | SYI | 7B |
| 3 | SB PL-1 | SYI | 8B |
| 4 | SB PL-2 | SYI | 9B |
| 5 | PINCH PL-1 | SYI | 10B |
| 6 | PINCH PL-2 | SYI | 11B |
| 7 | P.S.M FWD | SYI | 12B |
| 8 | | | |
| 9 | REC | SYI | 14B |
| 10 | PB | SYI | 15B |
| 11 | | | |
| 12 | C.R FG-1 | SYI | 32A |
| 13 | C.R FG-2 | SYI | 33A |
| 14 | P.S S-1 | SYI | 34A |
| 15 | P.S S-2 | SYI | 35A |
| 16 | TAPE SENSOR | SYI | 36A |
| 17 | P.ALARM | SYI | 37A |
| 18 | | | |
| 19 | GND | Ⓓ | |
| 20 | GND | Ⓓ | |

TO RP CN203

**CN15**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | EXT G.V(X) | YCS | 32 |
| 4 | EXT G.V(G) | YCS | 33 |
| 5 ⋮ 14 | | | |
| 15 | TEST SIG IN(X) | RFE | 6 |
| 16 | TEST SIG IN(G) | RFE | 7 |

TO DRV CN4

**CN101**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | REC +12V | | |
| 2 | REC -12V | | |
| 3 | PB +12V | | |
| 4 | PB -12V | | |
| 5 | GND | | |

TO VR CN3

**CN102**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | +12V | CN104 | 1 |
| 2 | -12V | CN104 | 2 |
| 3 | GND | Ⓐ-A | |

TO BIAS CN6

**CN103**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | +12V | CN104 | 1 |
| 2 | -12V | CN104 | 2 |
| 3 | REC +12V | CN101 | 1 |
| 4 | +5V | CN104 | 3 |
| 5 | GND | Ⓐ-A | |
| 6 | GND | Ⓐ-A | |

TO BIAS CN1

**CN2**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | BIAS OSC CONT | SYI | 7A |
| 2 | ERASE CONT | SYI | 8A |
| 3 | AUD BIAS CONT | SYI | 9A |
| 4 | CTL BIAS CONT | SYI | 10A |
| 5 | CUE SIG CONT | SYI | 11A |
| 6 | CUE REC CONT | SYI | 12A |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | GND | Ⓓ | |

TO HM CN1

**CN3**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | +5V | | |
| 2 | HM CONT | SYI | 6A |
| 3 | GND | Ⓓ | |

TP3 TP2 TP1

E1

TP4 TP5

E2

TO PS CN1

**CN104**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | +12V | | |
| 2 | -12V | | |
| 3 | +5V | | |
| 4 | GND | Ⓐ | |
| 5 | GND | Ⓐ | |
| 6 | SYS +12V | | |
| 7 | SYS -12V | | |
| 8 | GND | Ⓓ | |
| 9 | GND | Ⓓ | |
| 10 | GND | Ⓓ | |
| 11 | AC POWER AL | SYC | 29A |
| 12 | GND | Ⓐ | |

TO RP CN2

**CN105**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | +5V | CN104 | 3 |
| 2 | GND | Ⓐ-A | |

TO RP CN1

**CN4**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | Q STB ON | SYC | 6B |
| 2 | Q STB OFF | SYC | 7B |
| 3 | Q STOP | SYC | 8B |
| 4 | Q PLAY | SYC | 9B |
| 5 | Q RMT ON | SYC | 10B |
| 6 | Q RMT OFF | SYC | 11B |
| 7 | Q PREROLL | SYC | 12B |
| 8 | SPARE | SYC | 13B |
| 9 | SPARE | SYC | 33B |
| 10 | SPARE | SYC | 32B |
| 11 | Q STS PRL | SYC | 31B |
| 12 | Q STS RMT | SYC | 30B |
| 13 | Q STS ALARM | SYC | 29B |
| 14 | Q STS PLAY | SYC | 28B |
| 15 | Q STS STOP | SYC | 27B |
| 16 | Q STS STB | SYC | 26B |
| 17 | MMV STROBE IN | SYC | 25B |
| 18 | MMV DETECT IN | SYC | 24B |
| 19 | MMV SPARE | SYC | 23B |
| 20 | MMV ERASE IN | SYC | 22B |
| 21 | MMV SOFT REC IN | SYC | 21B |
| 22 | MMV G.V.REC IN | SYC | 20B |
| 23 | MMV CUE REC IN | SYC | 19B |
| 24 | MMV FF IN | SYC | 18B |
| 25 | MMV STROBE OUT | SYC | 42B |
| 26 | MMV DETECT OUT | SYC | 41B |
| 27 | MMV SPARE | SYC | 40B |
| 28 | MMV ERASE OUT | SYC | 39B |
| 29 | MMV SOFT REC OUT | SYC | 38B |
| 30 | MMV G.V.REC OUT | SYC | 16B |
| 31 | MMV CUE REC OUT | SYC | 15B |
| 32 | MMV FF OUT | SYC | 14B |
| 33 | GND | Ⓓ | |
| 34 | GND | Ⓓ | |

TO R-PANEL

**CN201**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | VIDEO IN (X) | YCS | 30 |
| 2 | VIDEO IN (G) | YCS | 31 |
| 3 | SEP Y IN (X) | YCS | 34 |
| 4 | SEP Y IN (G) | YCS | 35 |

TO R-PANEL

**CN202**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | G.V.IN (X) | YCS | 32 |
| 2 | G.V.IN (G) | YCS | 33 |
| 3 | SEP.G.Y IN (X) | YCS | 36 |
| 4 | SEP.G.Y IN (G) | YCS | 37 |

TO DRV CN2

**CN5**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | T.R FG-1 | RSV | 10B |
| 2 | T.R FG-2 | RSV | 11B |
| 3 | S.R FG-1 | RSV | 30B |
| 4 | S.R FG-2 | RSV | 31B |
| 5 | GND | RSV | 12B |
| 6 | CAP FG(+) | CSV | 6 |
| 7 | CAP FG-1 | CSV | 7 |
| 8 | CAP FG-2 | CSV | 8 |
| 9 | GND | CSV | 9 |
| 10 | | | |
| 11 | T.PTM(+) | RSV | 6B |
| 12 | T.PTM OUT (X) | RSV | 7B |
| 13 | T.PTM OUT (G) | RSV | 8B |
| 14 | S. PTM(+) | RSV | 26B |
| 15 | S.PTM OUT (X) | RSV | 27B |
| 16 | S.PTM OUT (G) | RSV | 28B |
| 17 | | | |
| 18 | PG A | DSV | 7 |
| 19 | GND | Ⓓ | |
| 20 | PG B | DSV | 6 |
| 21 | GND | Ⓓ | |
| 22 | PG S | DSV | 8 |
| 23 | GND | DSV | 9 |
| 24 | | | |
| 25 | D. ERROR | DSV | 26 |
| 26 | GND | DSV | 27 |
| 27 | CAP ERROR | CSV | 18 |
| 28 | GND | CSV | 19 |
| 29 | | | |
| 30 | TRM DR OUT | RSV | 14B |
| 31 | GND | RSV | 15B |
| 32 | SRM DR OUT | RSV | 34B |
| 33 | GND | RSV | 35B |
| 34 | GND | Ⓓ | |

TO R-PANEL

**CN203**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | VIDEO OUT (X) | YDE | 30 |
| 2 | VIDEO OUT (G) | YDE | 31 |
| 3 | SEP Y OUT (X) | YDE | 23A |
| 4 | SEP Y OUT (G) | YDE | 23B |
| 5 | SEP C OUT (X) | CDE | 22A |
| 6 | SEP C OUT (G) | CDE | 23A |
| 7 | V RF OUT (X) | YDE | 37A |
| 8 | V RF OUT (G) | YDE | 38A |
| 9 | A RF OUT (X) | ADE | 40 |
| 10 | A RF OUT (G) | ADE | 41 |
| 11 | SWP (X) | CDE | 33A |
| 12 | SWP (G) | CDE | 33B |

TO MB CN209 SECAM

**CN204**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | SECAM (X) | SEC | 27A |
| 2 | SECAM (G) | SEC | 28A |
| 3 | MESECAM (X) | SEC | 27B |
| 4 | MESECAM (G) | SEC | 28B |
| 5 | SEL C (X) | SEC | 32B |
| 6 | SEL C (G) | SEC | 33B |



TO RP CN8

**CN6**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | REMOTE | CN10 | 22 |
| 4 | EXT ALARM | SYC | 5B |
| 5 | GND | Ⓓ | |

TO VPB CN3

**CN7**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | PB VRF (X) | YDE | 6 |
| 2 | PB VRF (G) | YDE | 7 |
| 3 | GOL | | |
| 4 | PB +12V | CN101 | 3 |
| 5 | | | |
| 6 | | | |
| 7 | RF SWP-2 | DSV | 31 |
| 8 | GND | YDE | 1/2 |
| 9 | V.RF | CDE | 6 |
| 10 | V.RF | CDE | 7 |

TO R-PANEL

**CN205**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | MMV CTL MUTE | CSV (-) | 33 33A |
| 2 | | | |
| 3 | SONY CODE 5 | 1/2 | 38A |
| 4 | SONY CODE 6 | 1/2 | 38B |
| 5 | SONY CODE 7 | 1/2 | 39A |
| 6 | SONY CODE 8 | 1/2 | 39B |
| 7 | SONY CODE 9 | 1/2 | 40A |
| 8 | SONY CODE 10 | 1/2 | 40B |
| 9 | SONY CODE 11 | 1/2 | 41A |
| 10 | SONY CODE 12 | 1/2 | 41B |

TO MB CN208

**CN206**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | COMB Y1 (X) | YCS | 16 |
| 2 | COMB Y1 (G) | YCS | 17 |
| 3 | COMB C (X) | YCS | 18 |
| 4 | COMB C (G) | YCS | 19 |
| 5 | COMB Y2 (X) | YCS | 21 |
| 6 | COMB Y2 (G) | YCS | 22 |



TO VRA-A CN1

**CN8**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | A CH REC SIG (X) | RFE | 30 |
| 2 | A CH REC SIG (G) | RFE | 31 |
| 3 | A CH REC SIG (Y) | RFE | 32 |
| 4 | | | |
| 5 | A CH REC MONI (X) | RFE | 40 |
| 6 | A CH REC MONI (G) | RFE | 41 |
| 7 | A CH REC MONI (Y) | RFE | 41 |
| 8 | REC MUTE | | |
| 9 | +12V | RFE | 3 |
| 10 | GND | RFE | 1/2 |

TO VRA-B CN1

**CN9**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | B CH REC SIG (X) | RFE | 27 |
| 2 | B CH REC SIG (G) | RFE | 28 |
| 3 | B CH REC SIG (Y) | RFE | 29 |
| 4 | | | |
| 5 | B CH REC MONI (X) | RFE | 38 |
| 6 | B CH REC MONI (G) | RFE | 39 |
| 7 | B CH REC MONI (Y) | RFE | 39 |
| 8 | REC MUTE | | |
| 9 | +12V | RFE | 3 |
| 10 | GND | RFE | 1/2 |

TO MB CN210

**CN207**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | SEL V (X) | YCS | 39A |
| 2 | SEL V (G) | YCS | 40A |
| 3 | C SYNC (X) | YCS | 39B |
| 4 | C SYNC (G) | YCS | 40B |

TO MB CN206

**CN208**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | COMB Y1 (X) | CMD | 16 |
| 2 | COMB Y1 (G) | CMD | 17 |
| 3 | COMB C (X) | CMD | 18 |
| 4 | COMB C (G) | CMD | 19 |
| 5 | COMB Y2 (X) | YMD | 10 |
| 6 | COMB Y2 (G) | YMD | 11 |

TO MB CN204 SECAM

**CN209**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | SECAM (X) | CMD | 27A |
| 2 | SECAM (G) | CMD | 28A |
| 3 | MESECAM (X) | CMD | 27B |
| 4 | MESECAM (G) | CMD | 28B |
| 5 | SEL C (X) | CMD | 32A |
| 6 | SEL C (G) | CMD | 33A |

TO VR CN2

**CN10**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | AFM CH-1 LINE SIG (X) | AMD | 20 |
| 2 | AFM CH-1 LINE SIG (G) | AMD | 21 |
| 3 | AFM CH-2 LINE SIG (X) | AMD | 22 |
| 4 | AFM CH-2 LINE SIG (G) | AMD | 23 |
| 5 | AUD CH-1 LINE SIG (X) | AUL | 6 |
| 6 | AUD CH-1 LINE SIG (G) | AUL | 7 |
| 7 | AUD CH-2 LINE SIG (X) | AUR | 6 |
| 8 | AUD CH-2 LINE SIG (G) | AUR | 7 |
| 9 | CH-1 METER (X) | AUL | 12 |
| 10 | CH-1 METER (G) | AUL | 13 |
| 11 | CH-2 METER (X) | AUR | 12 |
| 12 | CH-2 METER (G) | AUR | 13 |
| 13 | AFM CH-1 PHONE (X) | ADE | 6 |
| 14 | AFM CH-1 PHONE (G) | ADE | 7 |
| 15 | AFM CH-2 PHONE (X) | ADE | 8 |
| 16 | AFM CH-2 PHONE (G) | ADE | 9 |
| 17 | AUD CH-1 PHONE (X) | AUL | 25 |
| 18 | AUD CH-1 PHONE (G) | AUL | 26 |
| 19 | AUD CH-2 PHONE (X) | AUR | 25 |
| 20 | AUD CH-2 PHONE (G) | AUR | 26 |
| 21 | | | |
| 22 | REMOTE | SYI | 45A |
| 23 | AFM | AMD | 17 |
| 24 | | | |
| 25 | | | |
| 26 | GND | Ⓐ-A | |

TO MB CN207

**CN210**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | SEL V (X) | SEC | 35B |
| 2 | SEL V (G) | SEC | 36B |
| 3 | C SYNC (X) | SEC | 38A |
| 4 | C SYNC (G) | SEC | 39A |

TO R-PANEL

**CN211**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | SEP C IN (X) | CMD | 34A |
| 2 | SEP C IN (G) | CMD | 35A |
| 3 | | | |
| 4 | | | |

TO R-PANEL

**CN212**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | SEP G.C.IN (X) | CMD | 36A |
| 2 | SEP G.C.IN (G) | CMD | 37A |

TO BIAS CN2

**CN11**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | AUD REC SIG (X) | AUL | 18 |
| 2 | AUD REC SIG (G) | AUL | 19 |
| 3 | R/P PB SIG (X) | AUL | 35 |
| 4 | R/P PB SIG (Y) | AUL | 36 |
| 5 | R/P PB SIG (G) | AUL | 36 |
| 6 | BIAS CONT (X) | AUL | 20 |
| 7 | BIAS CONT (-) | AUL | 21 |
| 8 | AUD REC SIG (X) | AUR | 18 |
| 9 | AUD REC SIG (G) | AUR | 19 |
| 10 | R/P PB SIG (X) | AUR | 35 |
| 11 | R/P PB SIG (Y) | AUR | 36 |
| 12 | R/P PB SIG (G) | AUR | 36 |
| 13 | BIAS CONT (X) | AUR | 20 |
| 14 | BIAS CONT (-) | AUR | 21 |
| 15 | | | |
| 16 | | | |
| 17 | PB-CUE (X) | CSV | 39 |
| 18 | PB-CUE (G) | CSV | 40 |
| 19 | CTL SIG (X) | CSV | 33 |
| 20 | CTL SIG (G) | CSV | 34 |

TO VPB CN6

**CN12**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | +9V | YDE | 5 |
| 2 | GND | YDE | 1/2 |

TO APR CN3

**CN301**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | AFM A-CH REC SIG (X) | AMD | 13A |
| 2 | AFM A-CH REC SIG (G) | AMD | 12 |
| 3 | | | |
| 4 | | | |
| 5 | AFM A-CH REC MONI (X) | AMD | 9 |
| 6 | AFM A-CH REC MONI (G) | AMD | 8 |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

TO APR CN3

**CN302**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | AFM B-CH REC SIG (X) | AMD | 11A |
| 2 | AFM B-CH REC SIG (G) | AMD | 10 |
| 3 | | | |
| 4 | | | |
| 5 | AFM B-CH REC MONI (X) | AMD | 7 |
| 6 | AFM B-CH REC MONI (G) | AMD | 6 |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

NOTE;

GND Ⓓ → DIGITAL GND

GND Ⓐ-V → ANALOG VIDEO GND

GND Ⓐ-A → ANALOG AUDIO GND

GND Ⓐ → ANALOG GND

TO RP CN304

**CN13**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | AFM CH-1 LINE OUT (X) | ADE | 10 |
| 2 | AFM CH-1 LINE OUT (G) | ADE | 11 |
| 3 | AFM CH-2 LINE OUT (X) | ADE | 12 |
| 4 | AFM CH-2 LINE OUT (G) | ADE | 13 |
| 5 | AUD CH-1 LINE OUT (X) | AUL | 22 |
| 6 | AUD CH-1 LINE OUT (G) | AUL | 23 |
| 7 | AUD CH-2 LINE OUT (X) | AUR | 22 |
| 8 | AUD CH-2 LINE OUT (G) | AUR | 23 |
| 9 | | | |
| 10 | | | |

TO MHJ

**CN14**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | CH-1 MONI HEAD (X) | AUL | 32 |
| 2 | CH-1 MONI HEAD (Y) | AUL | 33 |
| 3 | CH-1 MONI HEAD (G) | AUL | 33 |
| 4 | CH-2 MONI HEAD (X) | AUR | 32 |
| 5 | CH-2 MONI HEAD (Y) | AUR | 33 |
| 6 | CH-2 MONI HEAD (G) | AUR | 33 |

TO APR CN2

**CN303**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | PB AFM OUT (X) | ADE | 34 |
| 2 | PB AFM OUT (G) | ADE | 35 |
| 3 | | | |
| 4 | PB +12V | CN101 | 3 |
| 5 | | | |
| 6 | | | |
| 7 | AFM RF SWP | DSV | 37 |
| 8 | | | |
| 9 | | | |
| 10 | GND | Ⓐ-A | |

TO APR CN2

**CN304**

| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | REC +12V | | |
| 2 | | | |
| 3 | REC -12V | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |

**CN305**

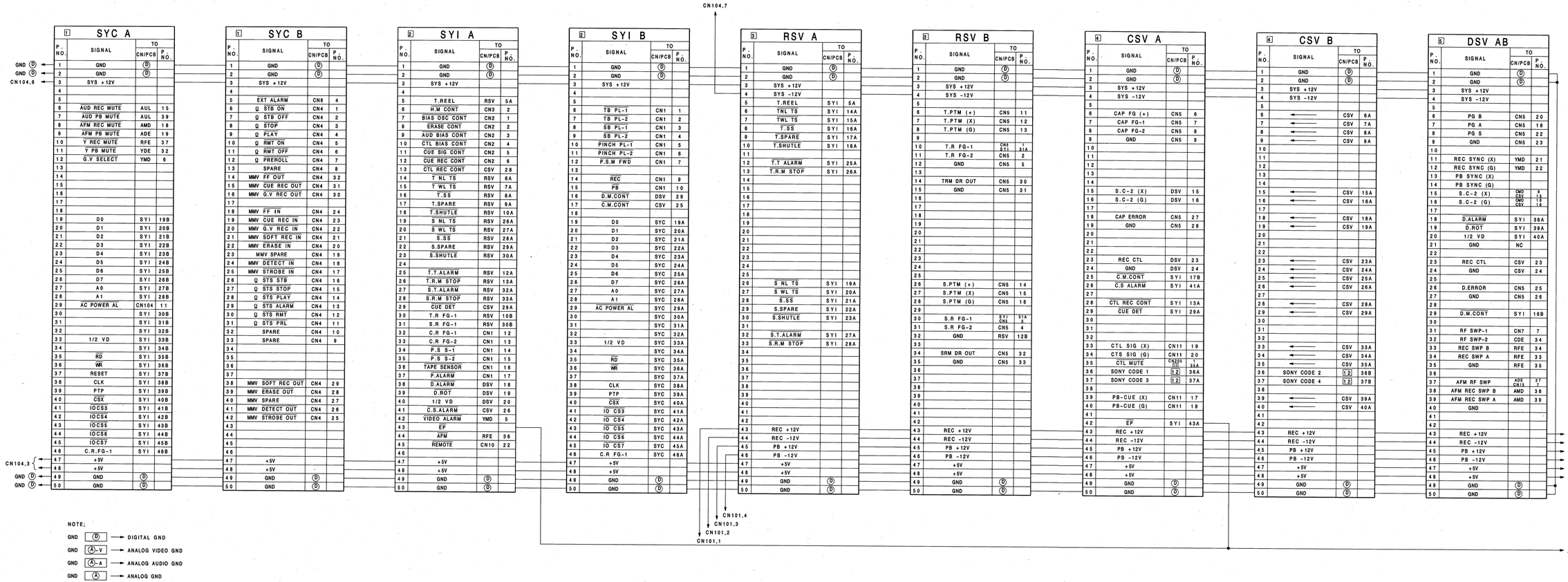
| P.NO. | SIGNAL | TO CN/PCB | TO P.NO. |
|---|---|---|---|
| 1 | +9V | ADE | 5 |
| 2 | GND | Ⓐ-A | |

MMV800/800-A
MMV810/810-A
MMV802/802-A

# MB-MM01(MBD) BOARD (1/5)

MB-MM01(MBD)(2/5) CARD RACK
CARD RACK MB-MM01(MBD)(2/5)

# MB-MM01(MBD) BOARD (2/5)
## MOTHER BOARD




MMV800/800-A
MMV810/810-A
MMV802/802-A

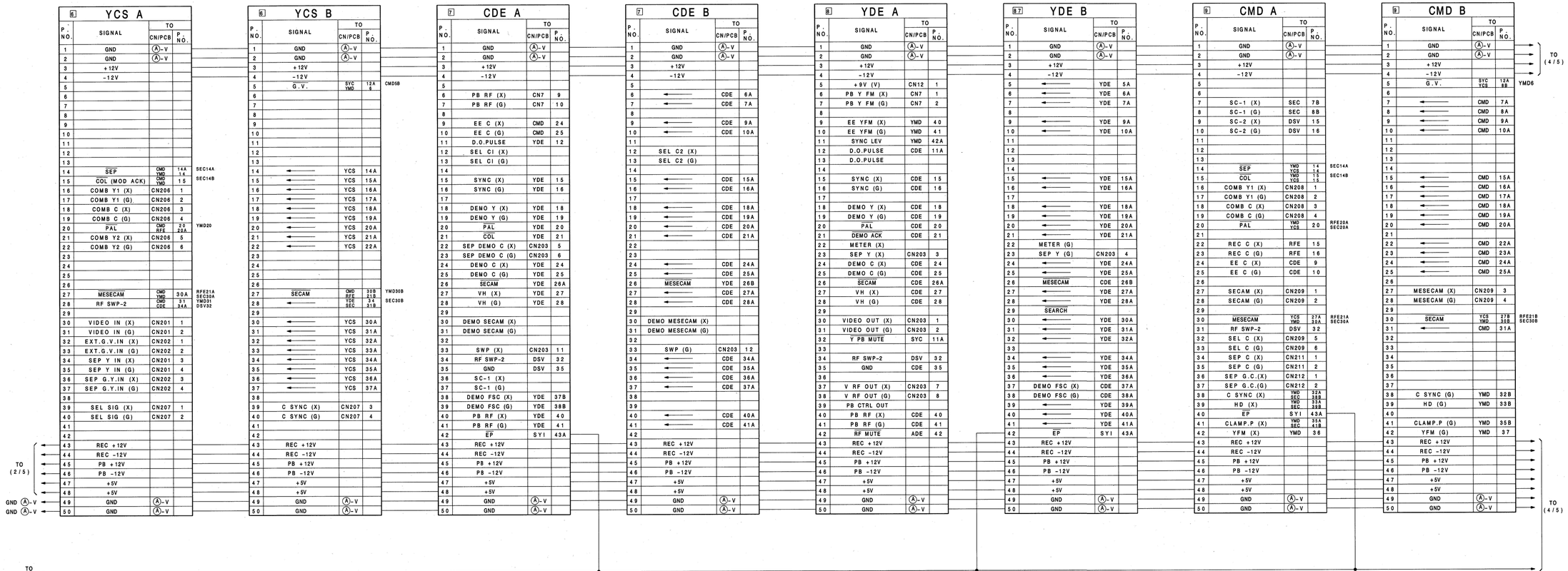
## MB-MM01(MBD) BOARD (2/5)


14-61
14-61

CARD RACK MB-MM01(MBD)(3/5)

MB-MM01(MBD)(3/5) CARD RACK

# MB-MM01(MBD) BOARD (3/5)
## MOTHER BOARD




MMV800/800-A
MMV810/810-A
MMV802/802-A

## MB-MM01(MBD) BOARD (3/5)

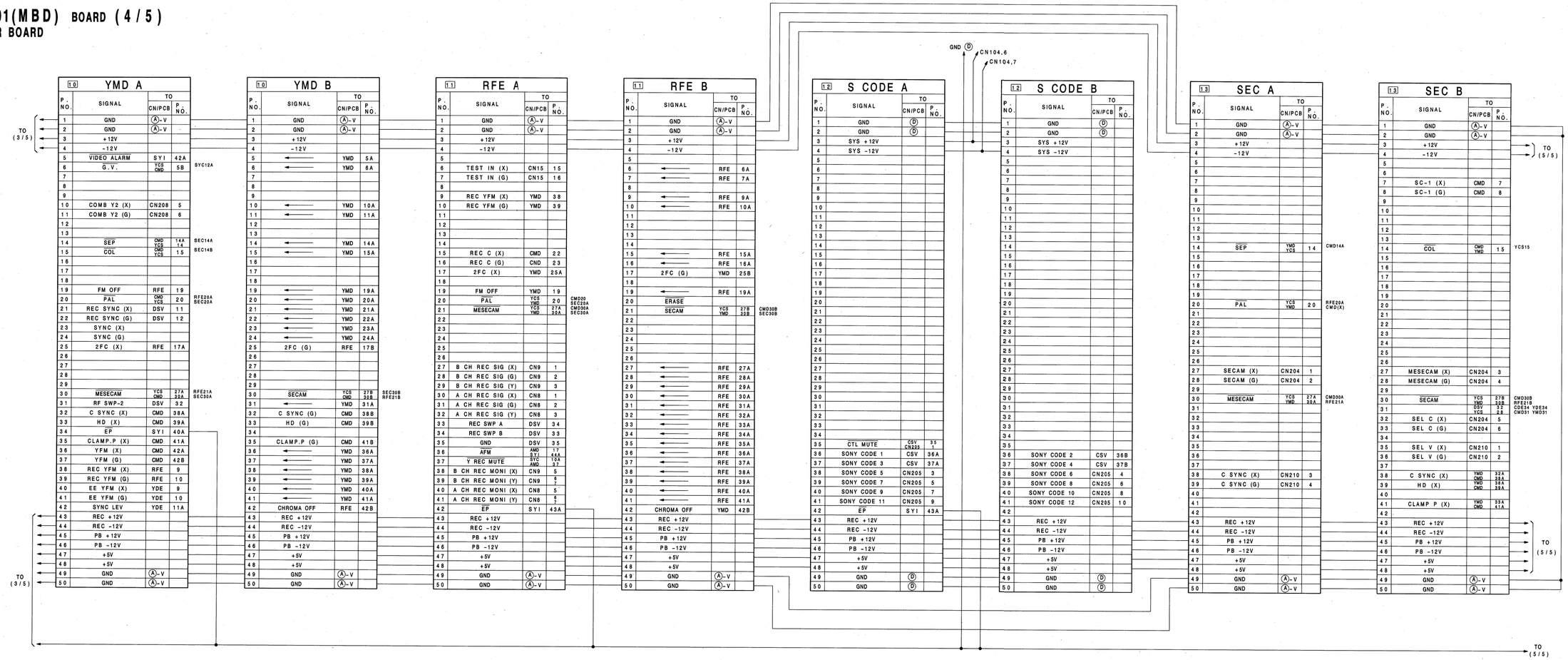


14-62

14-62

CARD RACK MB-MM01(MBD)(4/5)

# MB-MM01(MBD) BOARD (4/5)
## MOTHER BOARD




NOTE:

GND Ⓓ → DIGITAL GND
GND Ⓐ-V → ANALOG VIDEO GND
GND Ⓐ-A → ANALOG AUDIO GND
GND Ⓐ → ANALOG GND

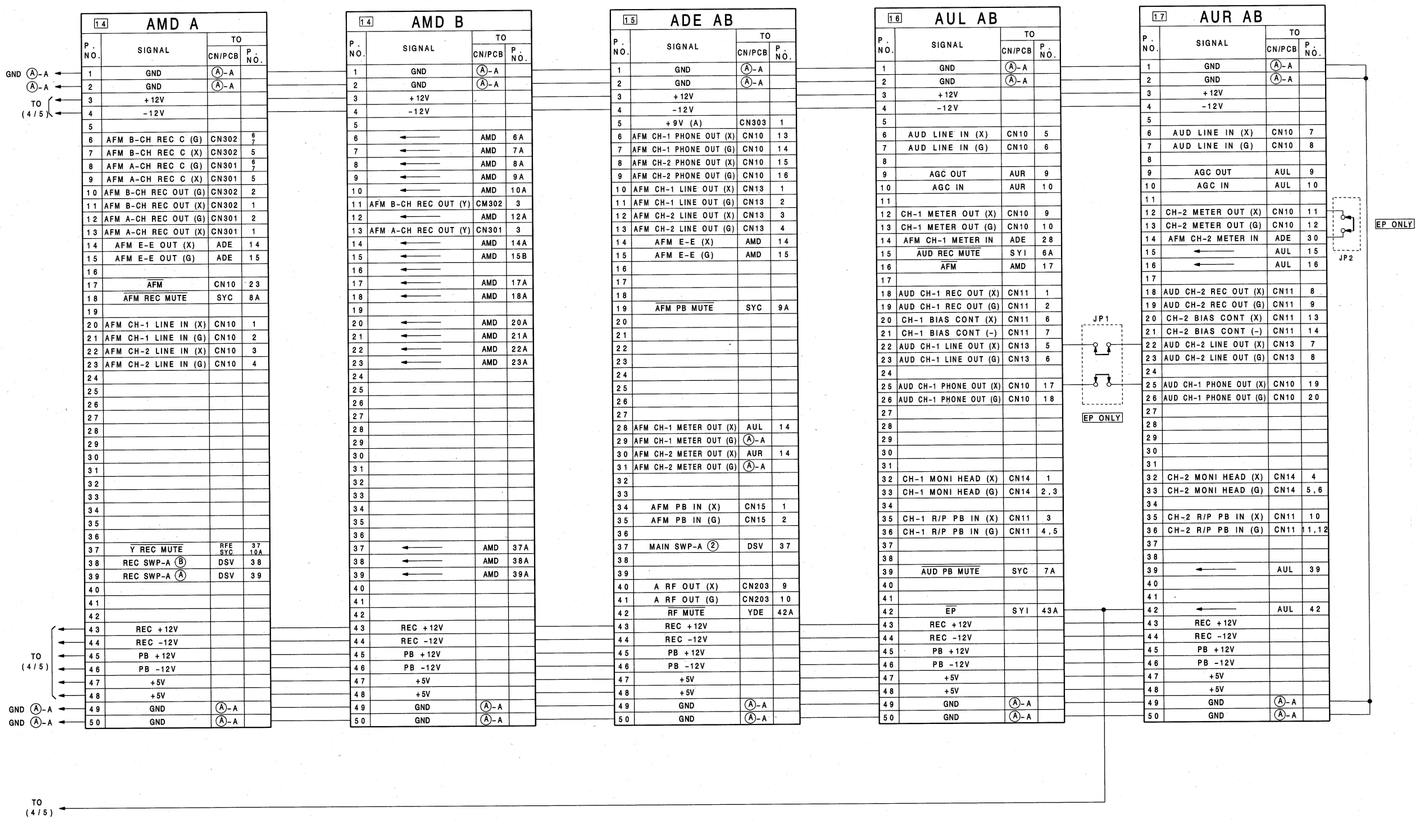
MMV800/800-A
MMV810/810-A
MMV802/802-A

**MB-MM01(MBD) BOARD (4/5)**

CARD RACK MB-MM01(MBD)(5/5)

MB-MM01(MBD)(5/5) CARD RACK

# MB-MM01(MBD) BOARD (5/5)
## MOTHER BOARD




NOTE;

GND Ⓓ → DIGITAL GND

GND Ⓐ-V → ANALOG VIDEO GND

GND Ⓐ-A → ANALOG AUDIO GND

GND Ⓐ → ANALOG GND

MMV800/800-A
MMV810/810-A
MMV802/802-A

## MB-MM01(MBD) BOARD (5/5)

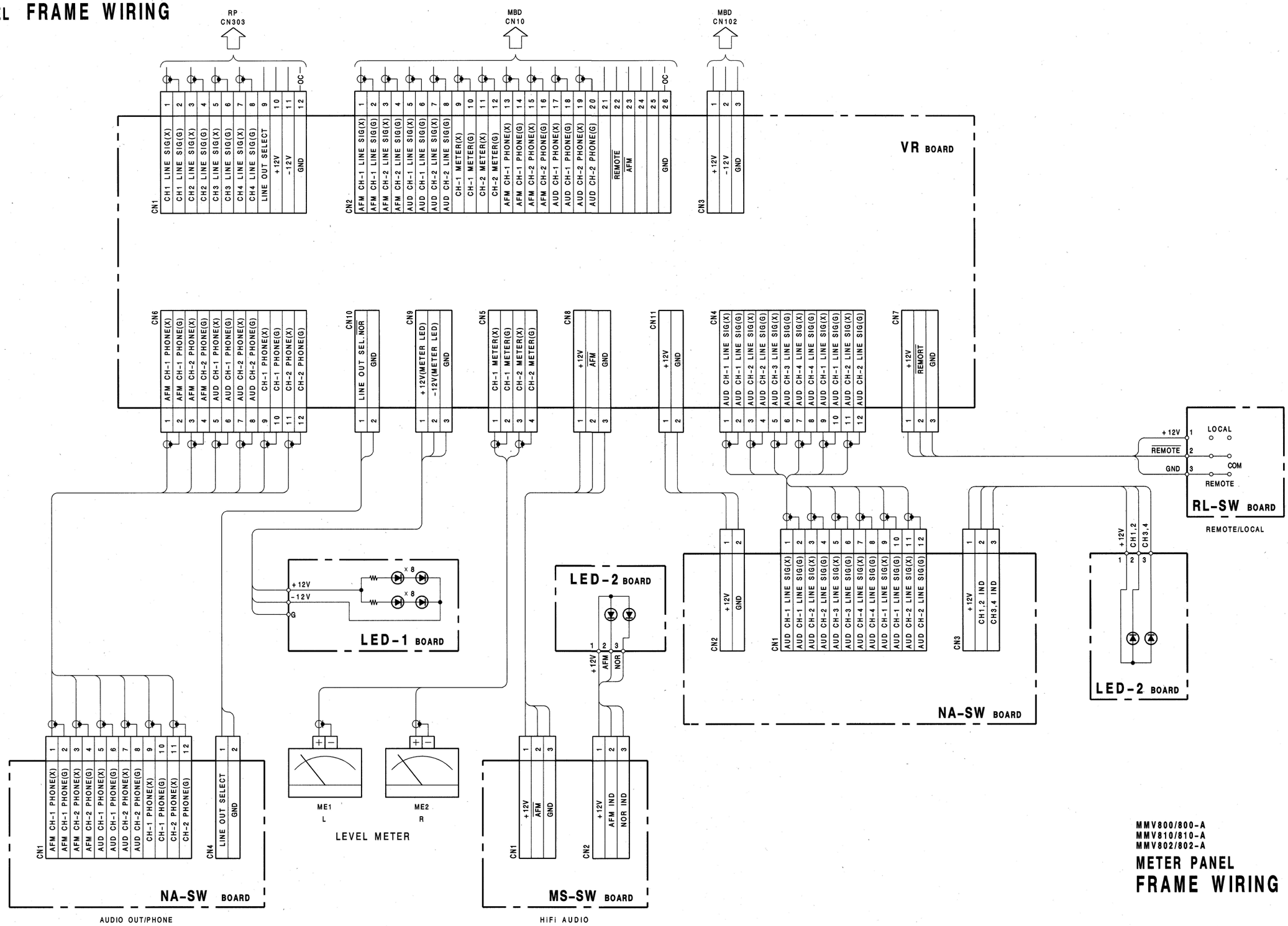


14-64

14-64

METER PANEL **FRAME** | **FRAME** METER PANEL

# METER PANEL FRAME WIRING



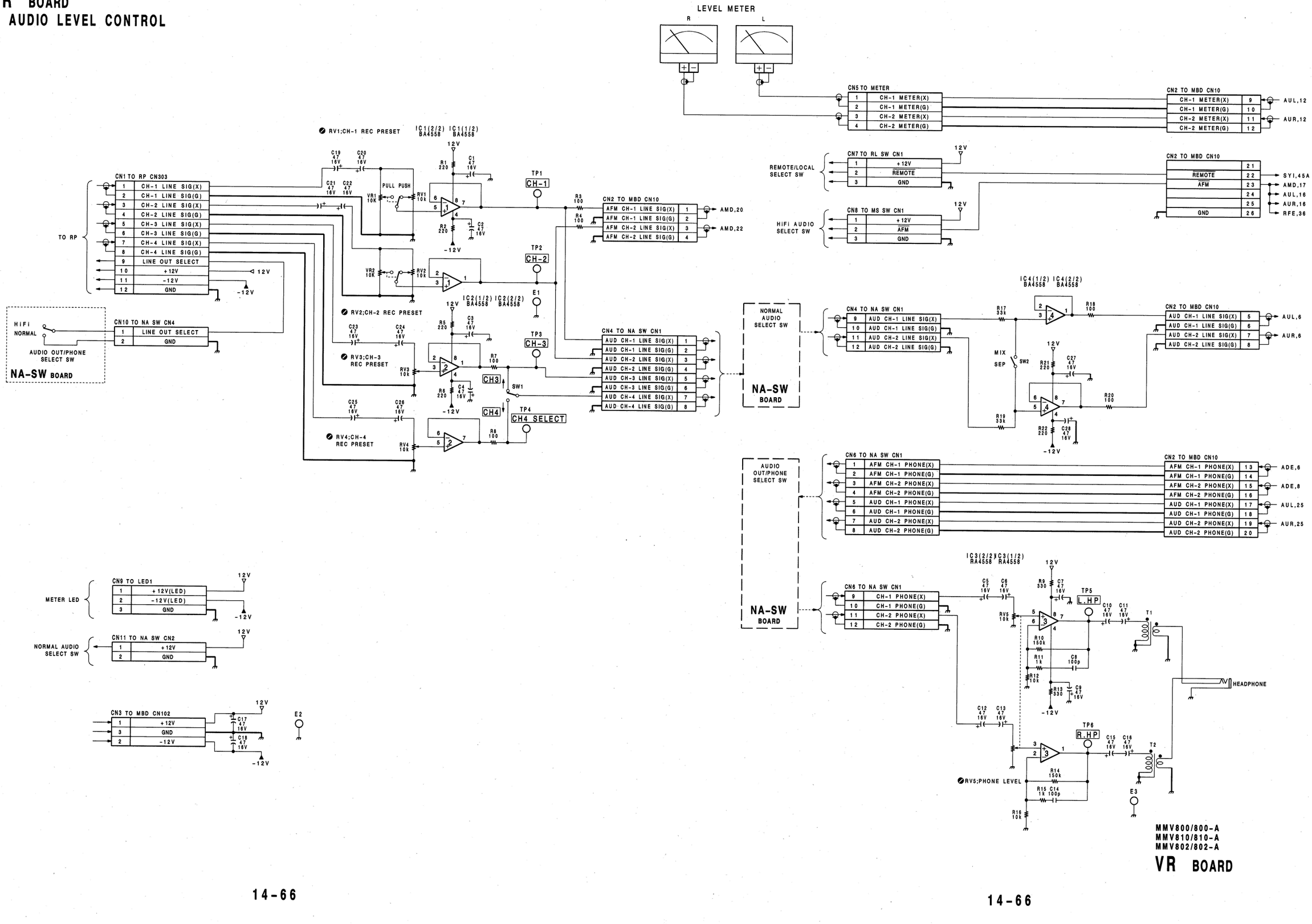

MMV800/800-A
MMV810/810-A
MMV802/802-A

**METER PANEL**
**FRAME WIRING**



14-65

# VR BOARD
## AUDIO LEVEL CONTROL




MMV800/800-A
MMV810/810-A
MMV802/802-A

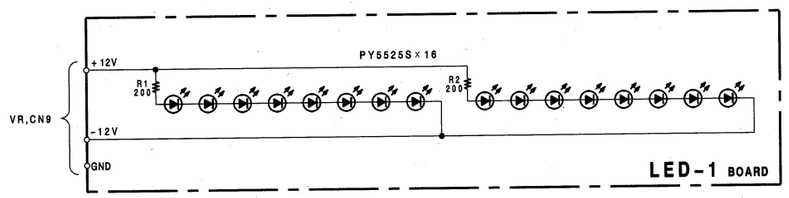
**VR BOARD**



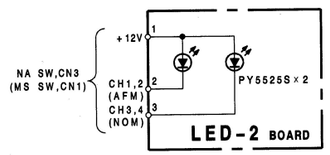
14-66

LED-1/2,NA-SW,RL-SW,MS-SW METER PANEL

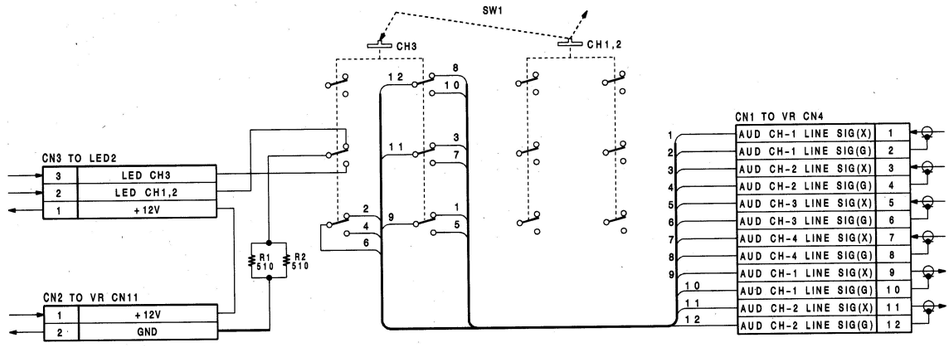
**LED-1** BOARD
METER LAMP
**LED-2** BOARD
AUDIO HiFi/NOR INDICATOR
**NA-SW** BOARD
NORMAL AUDIO SW
**RL-SW** BOARD
AUDIO OUT/PHONE SW
**MS-SW** BOARD
MONITOR SELECT SW



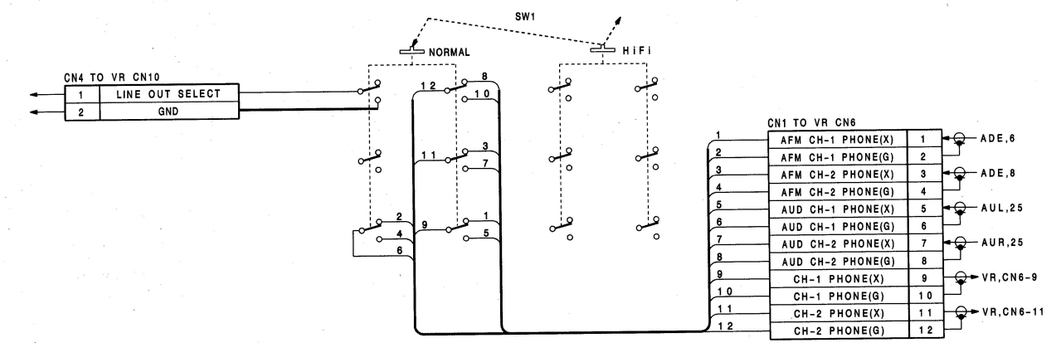

MMV800/800-A
MMV810/810-A
MMV802/802-A
**LED-1** BOARD



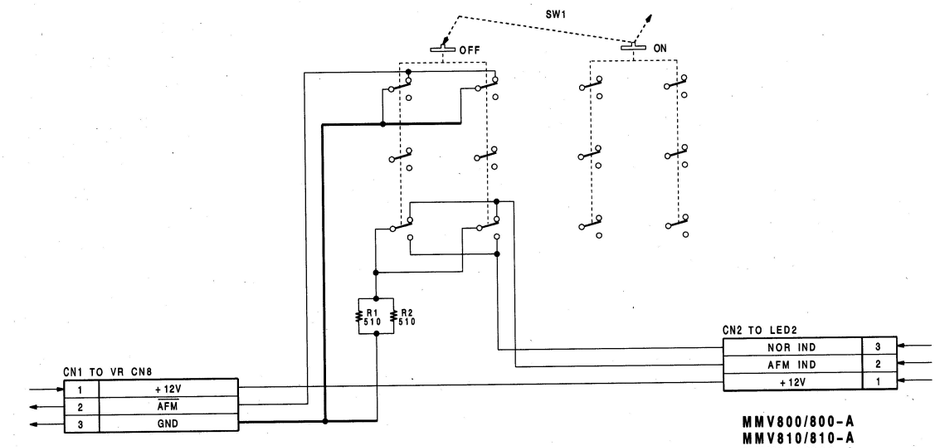

MMV800/800-A
MMV810/810-A
MMV802/802-A
**LED-2** BOARD




MMV800/800-A
MMV810/810-A
MMV802/802-A
**NA-SW** BOARD




MMV800/800-A
MMV810/810-A
MMV802/802-A
**RL-SW** BOARD




MMV800/800-A
MMV810/810-A
MMV802/802-A
**MS-SW** BOARD



14-67

# CONTROL PANEL FRAME WIRING

CONTROL PANEL FRAME ⟷ FRAME CONTROL PANEL

## SYI BOARD

CN1

| | |
|---|---|
| GND | 1 |
| GND | 2 |
| | 3 |
| GND | 4 |
| | 5 |
| +12V | 6 |
| FL2 | 7 |
| | 8 |
| FL0 | 9 |
| FL1 | 10 |
| | 11 |
| FLN | 12 |
| $\overline{\text{RTL}}$ | 13 |
| | 14 |
| $\overline{\text{AUTO REC}}$ | 15 |
| $\overline{\text{AUTO STOP}}$ | 16 |
| $\overline{\text{ZERO MEMORY}}$ | 17 |
| $\overline{\text{AUTO FF}}$ | 18 |
| $\overline{\text{S.C.R}}$ | 19 |
| $\overline{\text{E.C.R}}$ | 20 |
| $\overline{\text{F.F}}$ | 21 |
| $\overline{\text{REC}}$ | 22 |
| $\overline{\text{REW}}$ | 23 |
| $\overline{\text{PLAY}}$ | 24 |
| $\overline{\text{AUTO}}$ | 25 |
| $\overline{\text{STOP}}$ | 26 |
| $\overline{\text{(RESET)}}$ | 27 |
| $\overline{\text{MANUAL}}$ | 28 |
| COMMANDER | 29 |
| MECHA | 30 |
| MASTER | 31 |
| TAPE LENGTH | 32 |
| VIDEO | 33 |
| SERVO | 34 |
| POWER | 35 |
| TENSION | 36 |
| R6 | 37 |
| R7 | 38 |
| R4 | 39 |
| R5 | 40 |
| R2 | 41 |
| R3 | 42 |
| R0 | 43 |
| R1 | 44 |
| OB3 | 45 |
| $\overline{\text{BD}}$ | 46 |
| OB1 | 47 |
| OB2 | 48 |
| | 49 |
| OB0 | 50 |
| OA1 | 51 |
| OA2 | 52 |
| S3 | 53 |
| OA0 | 54 |
| S1 | 55 |
| S2 | 56 |
| +5V | 57 |
| S0 | 58 |
| +5V | 59 |
| +5V | 60 |

## KBD BOARD

CN1

| | |
|---|---|
| 1 | GND |
| 2 | GND |
| 3 | |
| 4 | GND |
| 5 | |
| 6 | +12V |
| 7 | FL2 |
| 8 | |
| 9 | FL0 |
| 10 | FL1 |
| 11 | |
| 12 | FLN |
| 13 | $\overline{\text{RTL}}$ |
| 14 | |
| 15 | $\overline{\text{AUTO REC}}$ |
| 16 | $\overline{\text{AUTO STOP}}$ |
| 17 | $\overline{\text{ZERO MEMORY}}$ |
| 18 | $\overline{\text{AUTO FF}}$ |
| 19 | $\overline{\text{S.C.R}}$ |
| 20 | $\overline{\text{E.C.R}}$ |
| 21 | $\overline{\text{F.F}}$ |
| 22 | $\overline{\text{REC}}$ |
| 23 | $\overline{\text{REW}}$ |
| 24 | $\overline{\text{PLAY}}$ |
| 25 | $\overline{\text{AUTO}}$ |
| 26 | $\overline{\text{STOP}}$ |
| 27 | $\overline{\text{(RESET)}}$ |
| 28 | $\overline{\text{MANUAL}}$ |
| 29 | COMMANDER |
| 30 | MECHA |
| 31 | MASTER |
| 32 | TAPE LENGTH |
| 33 | VIDEO |
| 34 | SERVO |
| 35 | POWER |
| 36 | TENSION |
| 37 | R6 |
| 38 | R7 |
| 39 | R4 |
| 40 | R5 |
| 41 | R2 |
| 42 | R3 |
| 43 | R0 |
| 44 | R1 |
| 45 | OB3 |
| 46 | $\overline{\text{BD}}$ |
| 47 | OB1 |
| 48 | OB2 |
| 49 | |
| 50 | OB0 |
| 51 | OA1 |
| 52 | OA2 |
| 53 | S3 |
| 54 | OA0 |
| 55 | S1 |
| 56 | S2 |
| 57 | +5V |
| 58 | S0 |
| 59 | +5V |
| 60 | +5V |

CN2

| | |
|---|---|
| R7 | 1 |
| R6 | 2 |
| R5 | 3 |
| KY0 | 4 |
| KY1 | 5 |
| KY2 | 6 |
| | 7 |
| KY3 | 8 |

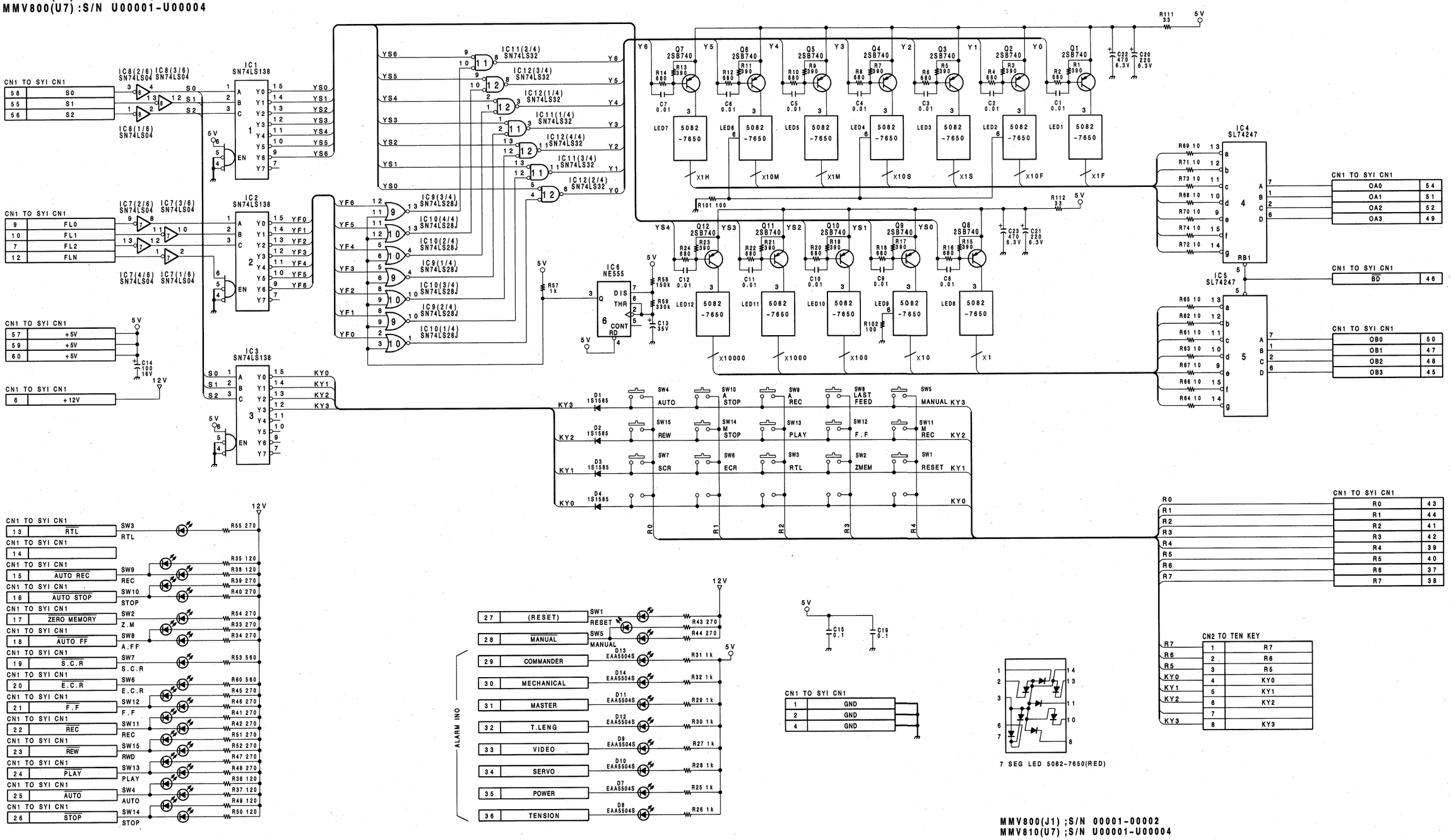
TEN KEY

KBD(1-613-810-11) CONTROL PANEL

# KBD BOARD(1-613-810-11)

## KEY BOARD

MMV800(J1):S/N 00001,00002
MMV800(U7):S/N U00001-U00004






MMV800(J1);S/N 00001-00002
MMV810(U7);S/N U00001-U00004

## KBD BOARD

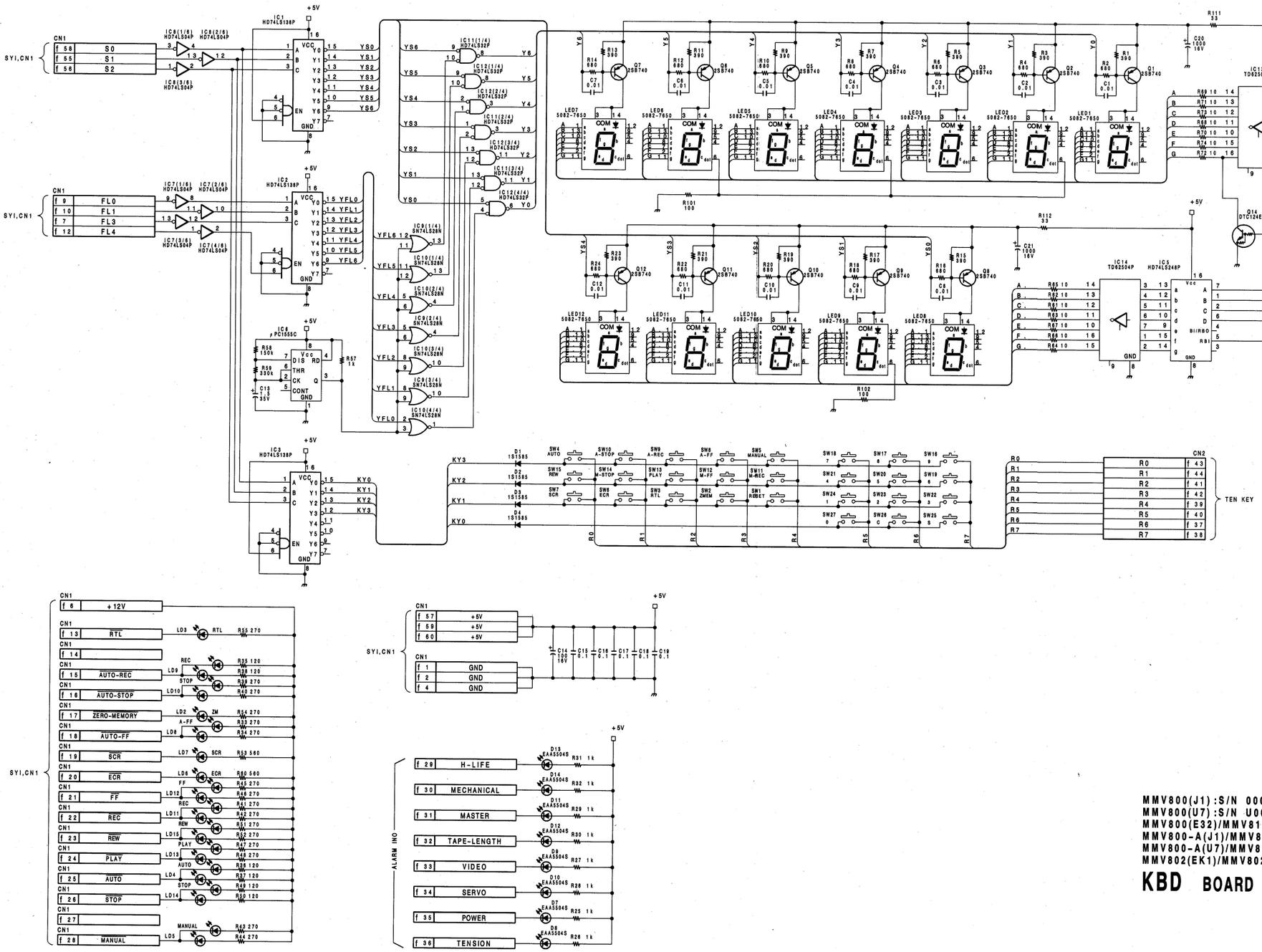
14-69

(1-647-380-12)KBD CONTROL PANEL

# KBD BOARD(1-647-380-12)

## KEY BOARD

MMV800(J1):S/N 00003 and up
MMV800(U7):S/N U00008 and up
MMV800(E32)/MMV810(E32):S/N W00001 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1):S/N 00001 and up
MMV800-A(U7)/MMV810(U7)/MMV810-A(U7):S/N U00001 and up
MMV802(EK1)/MMV802-A(EK1):S/N E00001 and up



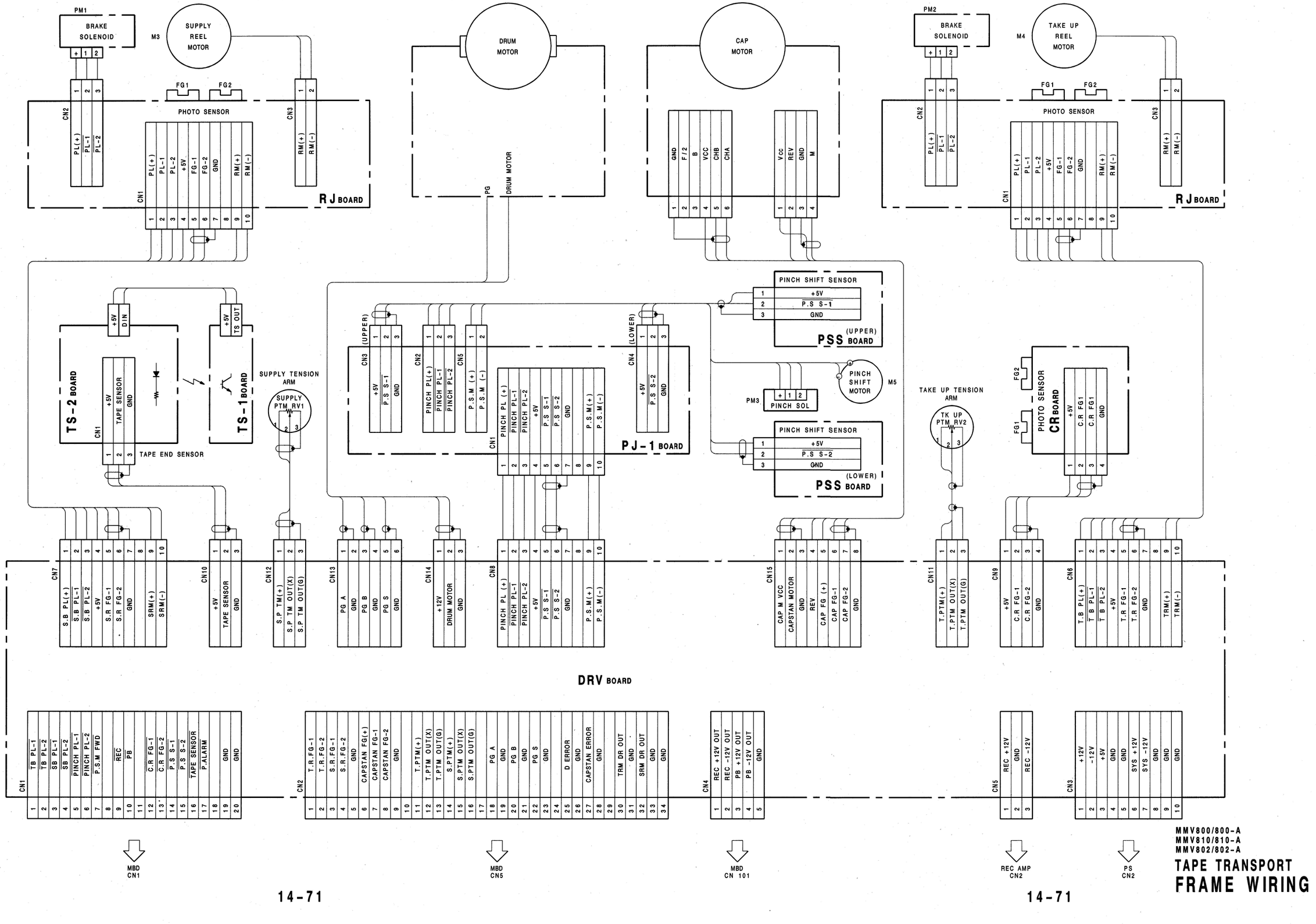

14-70

MMV800(J1):S/N 00003 and up
MMV800(U7):S/N U00008 and up
MMV800(E32)/MMV810(E32):S/N W00001 and up
MMV800-A(J1)/MMV810(J1)/MMV810-A(J1):S/N 00001 and up
MMV800-A(U7)/MMV810(U7)/MMV810-A(U7):S/N U00001 and up
MMV802(EK1)/MMV802-A(EK1):S/N E00001 and up

KBD BOARD

14-70

# TAPE TRANSPORT FRAME WIRING



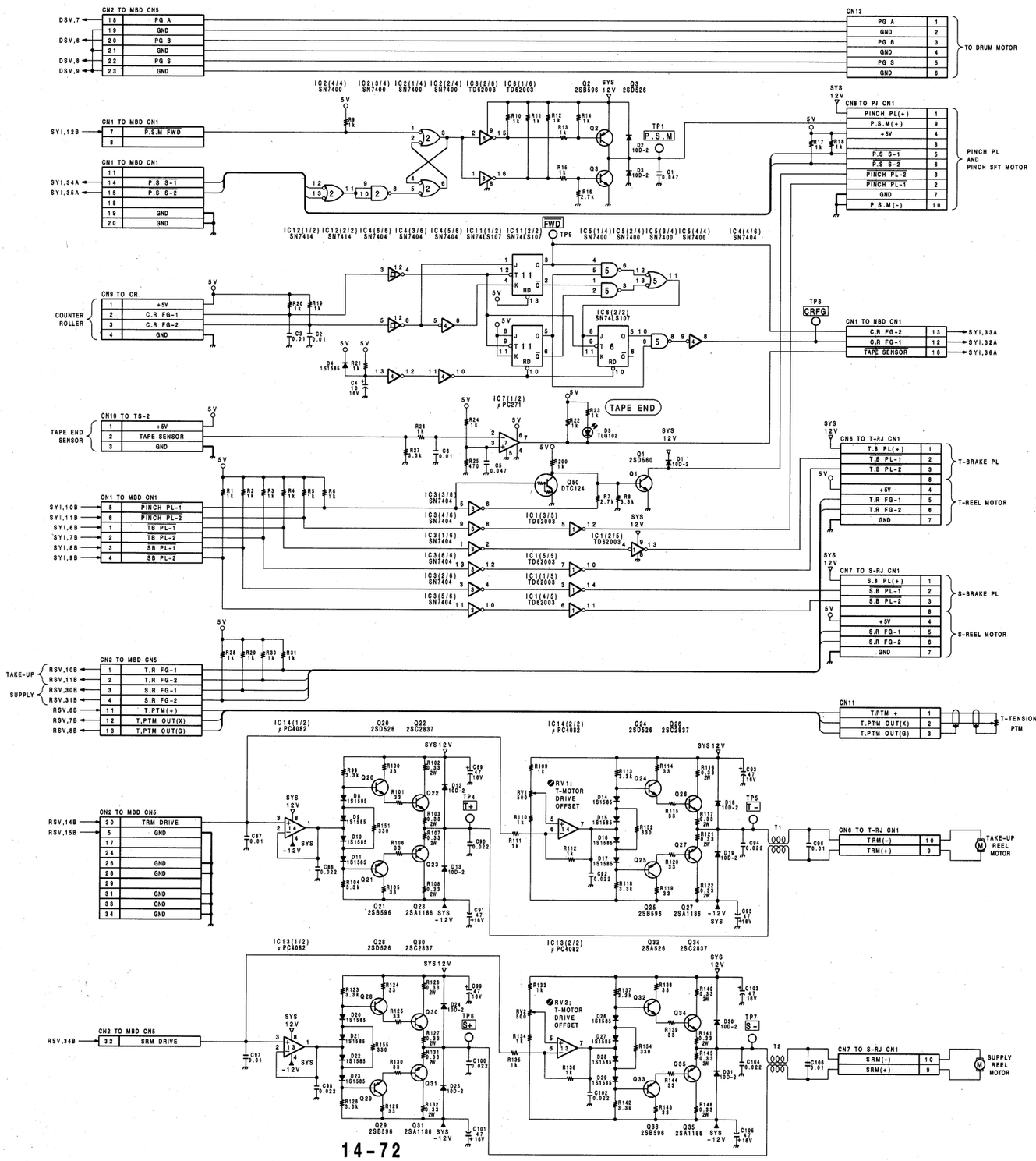



14-71

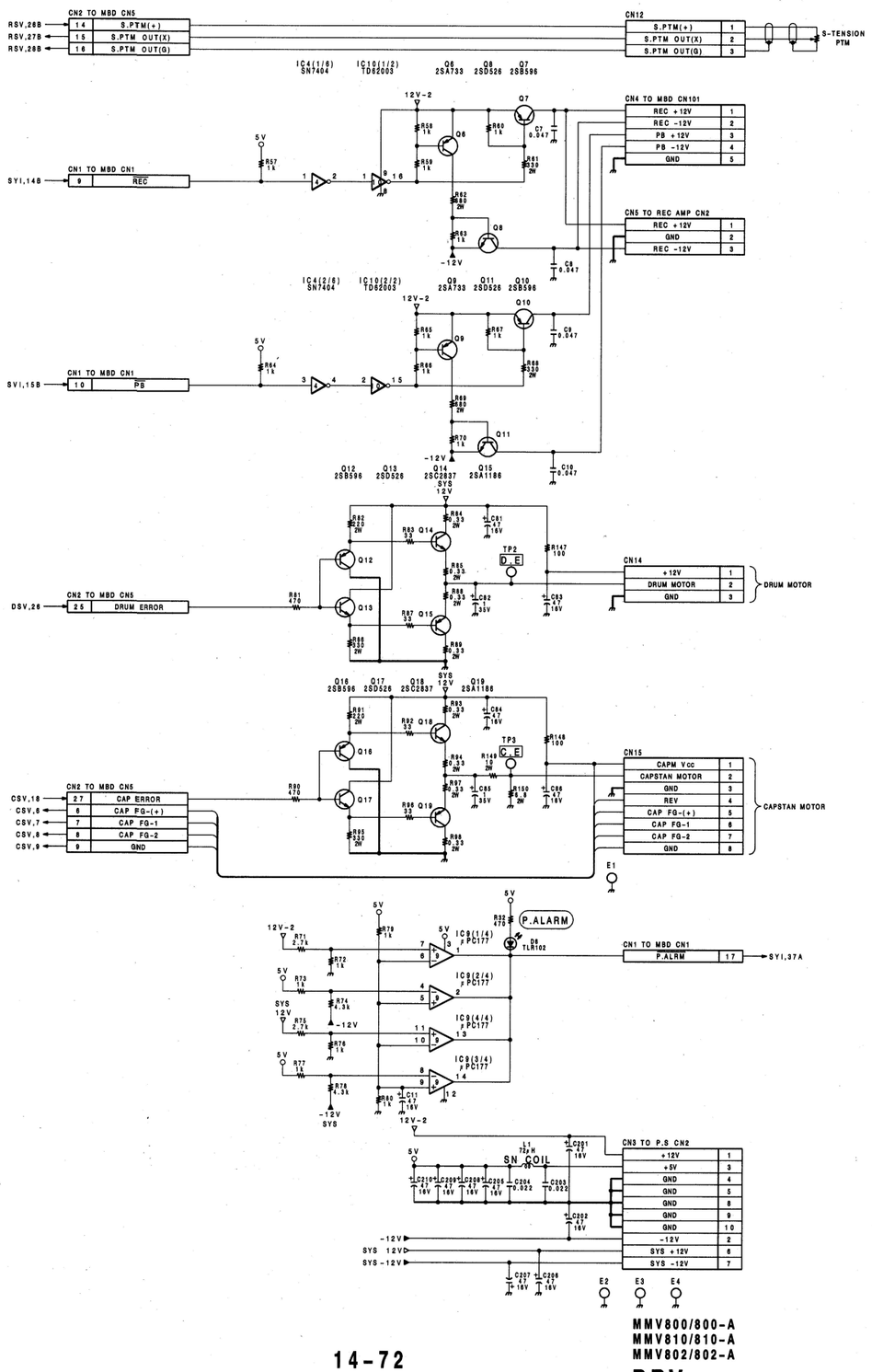
MMV800/800-A
MMV810/810-A
MMV802/802-A

**TAPE TRANSPORT FRAME WIRING**

# DRV BOARD
## MOTOR DRIVE





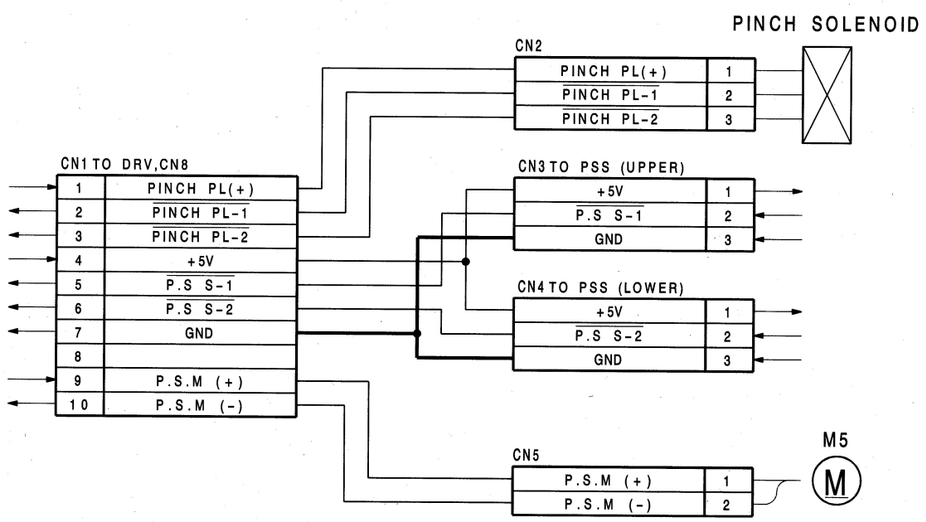





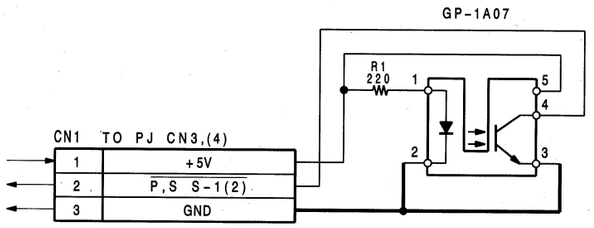

MMV800/800-A
MMV810/810-A
MMV802/802-A

# DRV BOARD

**PJ-1** BOARD
PINCH SHIFT MOTOR RELAYING
**PSS** BOARD
PINCH SHIFT SENSOR
**RJ** BOARD
REEL MOTOR RELAYING
**CR** BOARD
COUNTER ROLLER

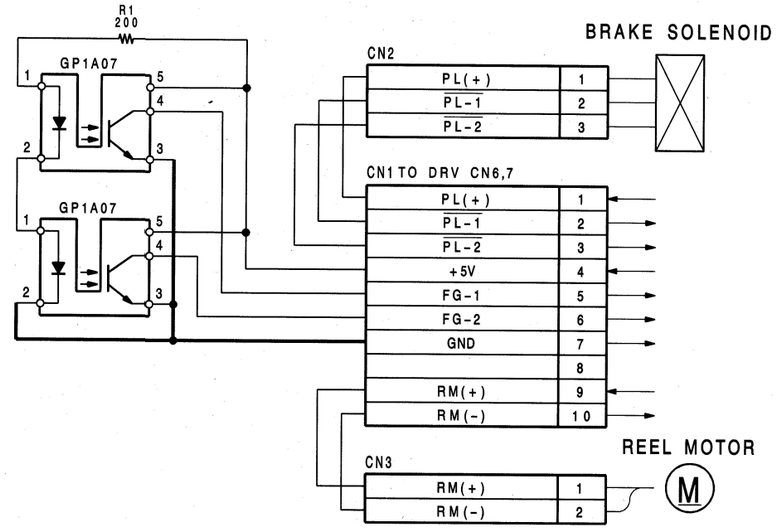



MMV800/800-A
MMV810/810-A
MMV802/802-A
**PJ-1** BOARD

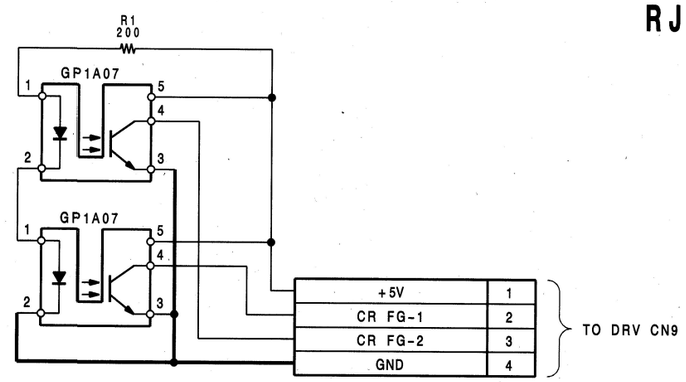



MMV800/800-A
MMV810/810-A
MMV802/802-A
**PSS** BOARD



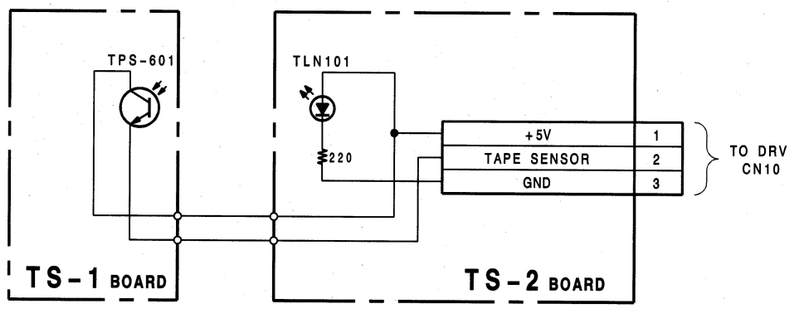



MMV800/800-A
MMV810/810-A
MMV802/802-A
**RJ** BOARD




MMV800/800-A
MMV810/810-A
MMV802/802-A
**CR** BOARD

## TS-1/2 BOARD
## TAPE SENSOR




MMV800/800-A
MMV810/810-A
MMV802/802-A

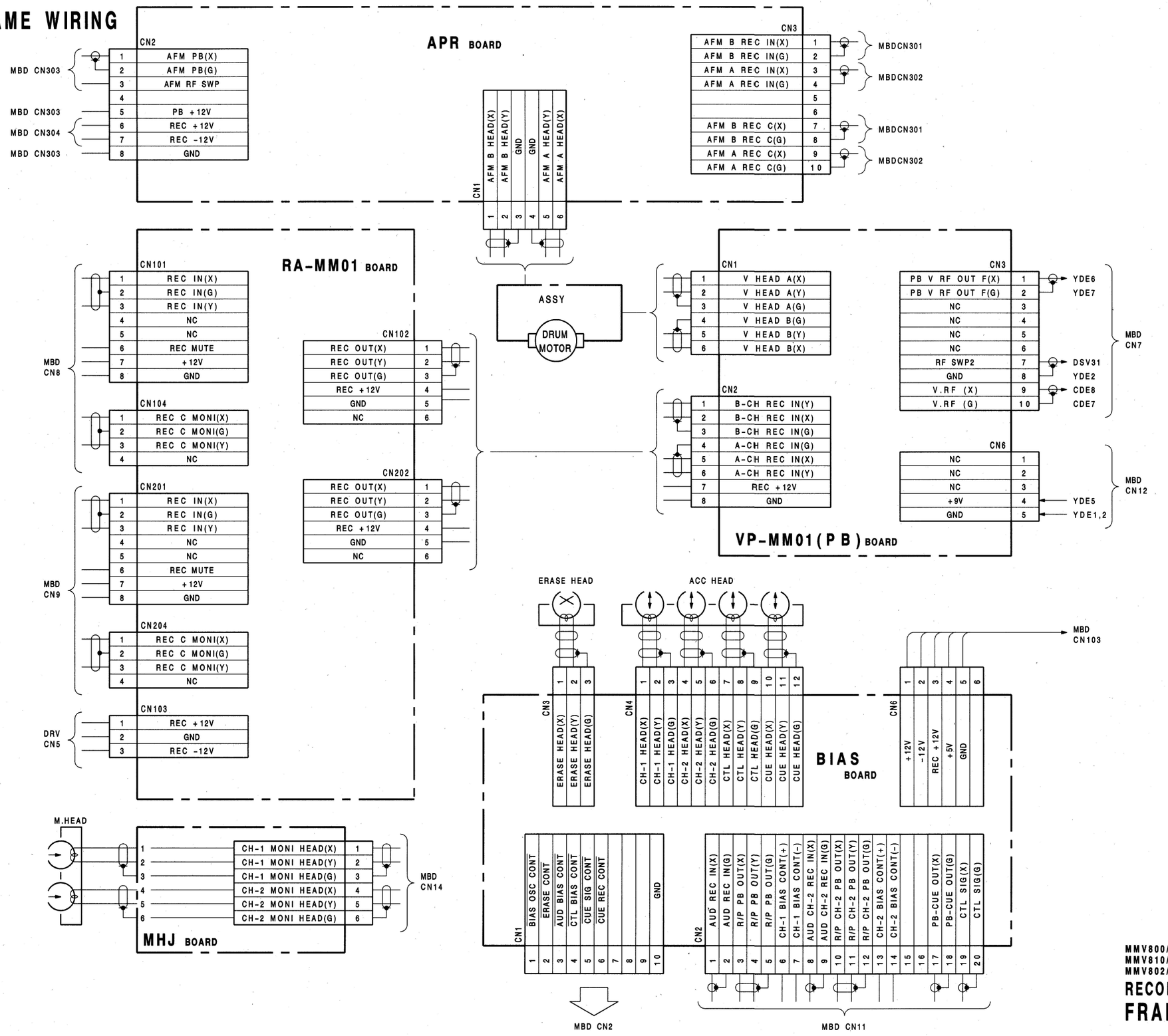
## TS-1 BOARD
## TS-2 BOARD



14-74

RECORDING,PLAYBACK **FRAME** | **FRAME** RECORDING,PLAYBACK

# RECORDING,PLAYBACK FRAME WIRING





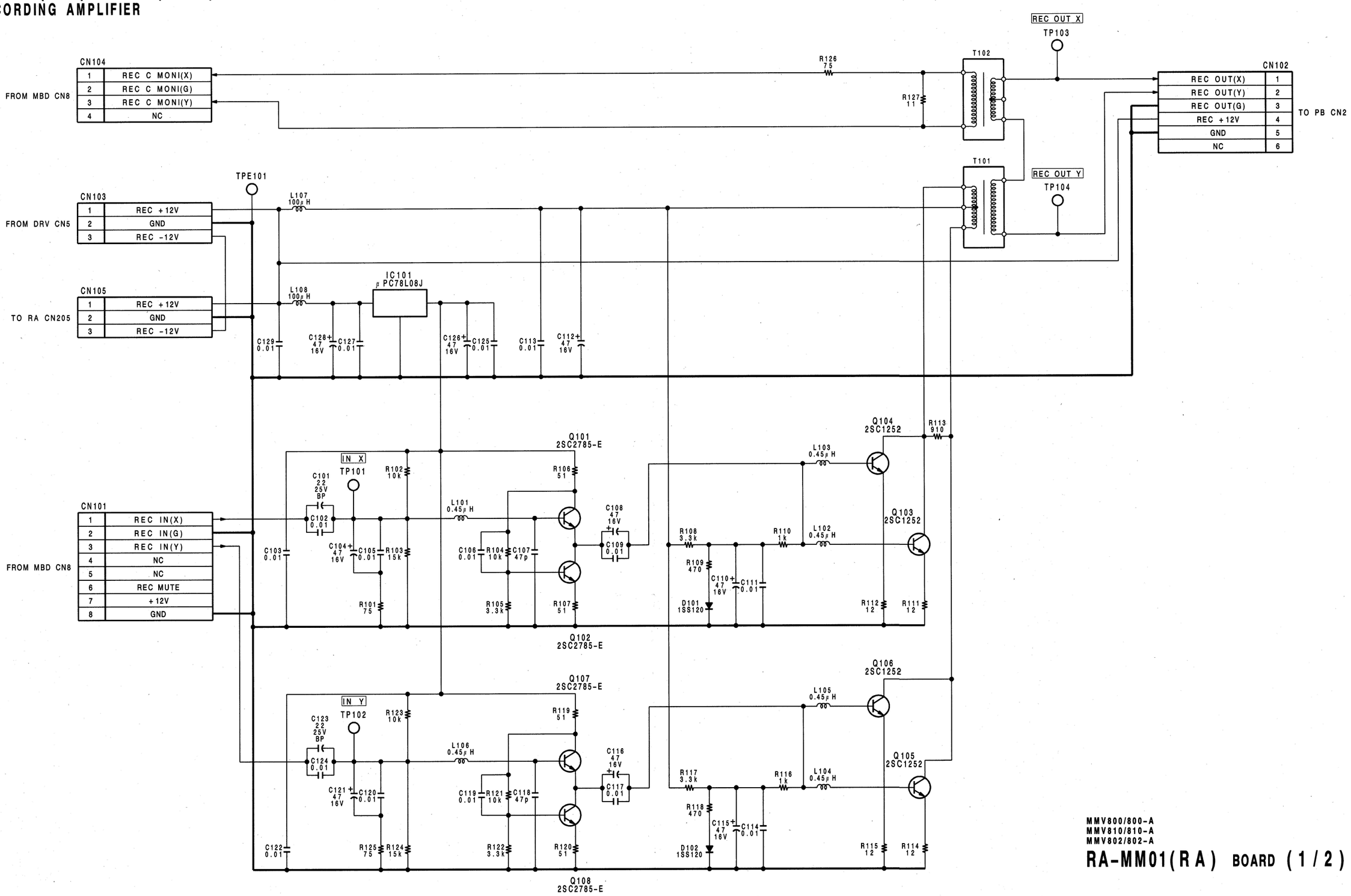

14-75

MMV800/800-A
MMV810/810-A
MMV802/802-A

RECORDING,PLAYBACK
FRAME WIRING

RA-MM01(RA)(1/2) RECORDING,PLAYBACK

# RA-MM01(RA) BOARD (1/2)
## RECORDING AMPLIFIER





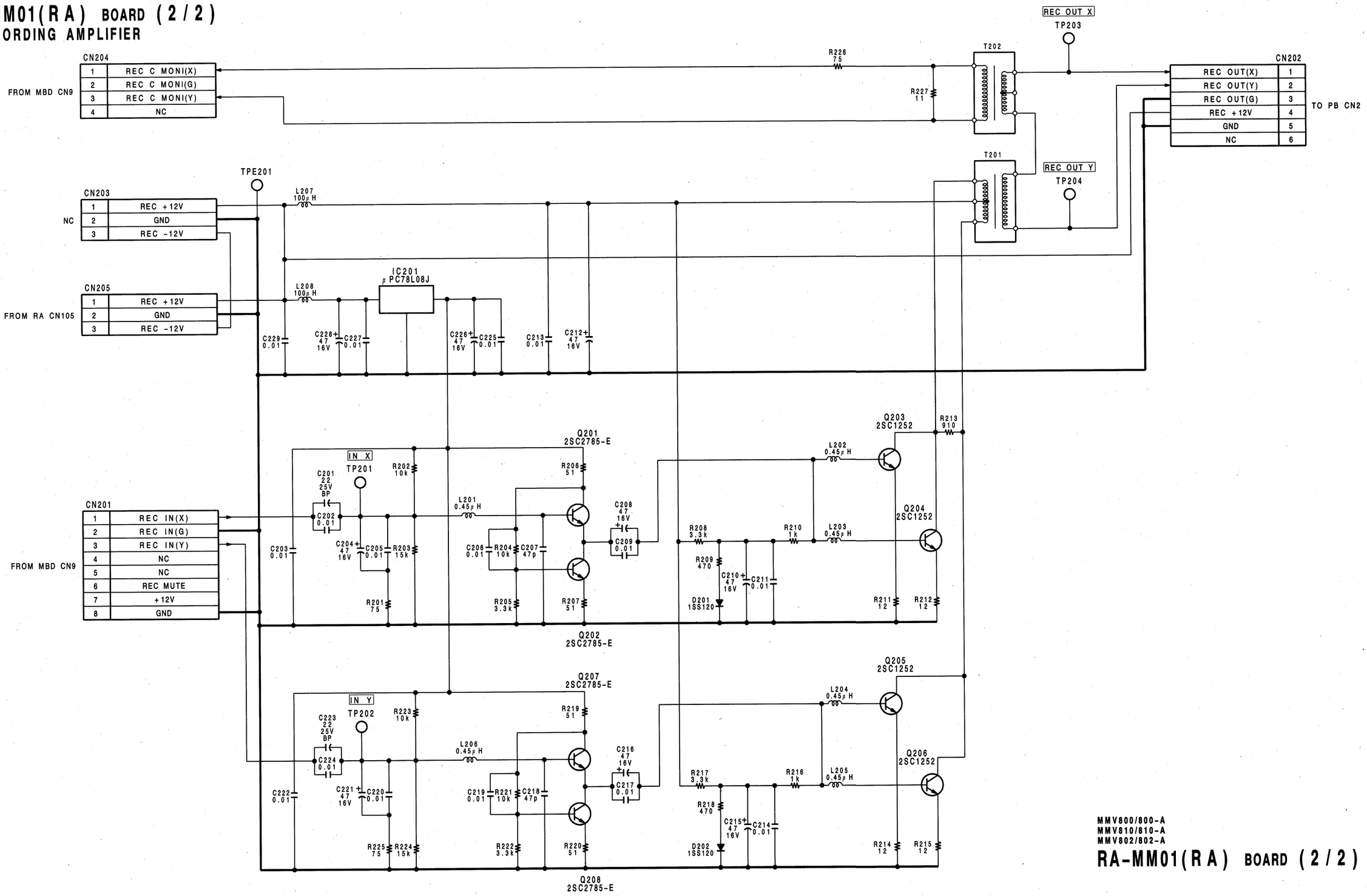

14-76

MMV800/800-A
MMV810/810-A
MMV802/802-A

RA-MM01(RA) BOARD (1/2)

RA-MM01(RA)(2/2) RECORDING,PLAYBACK

# RA-MM01(RA) BOARD (2/2)
## RECORDING AMPLIFIER



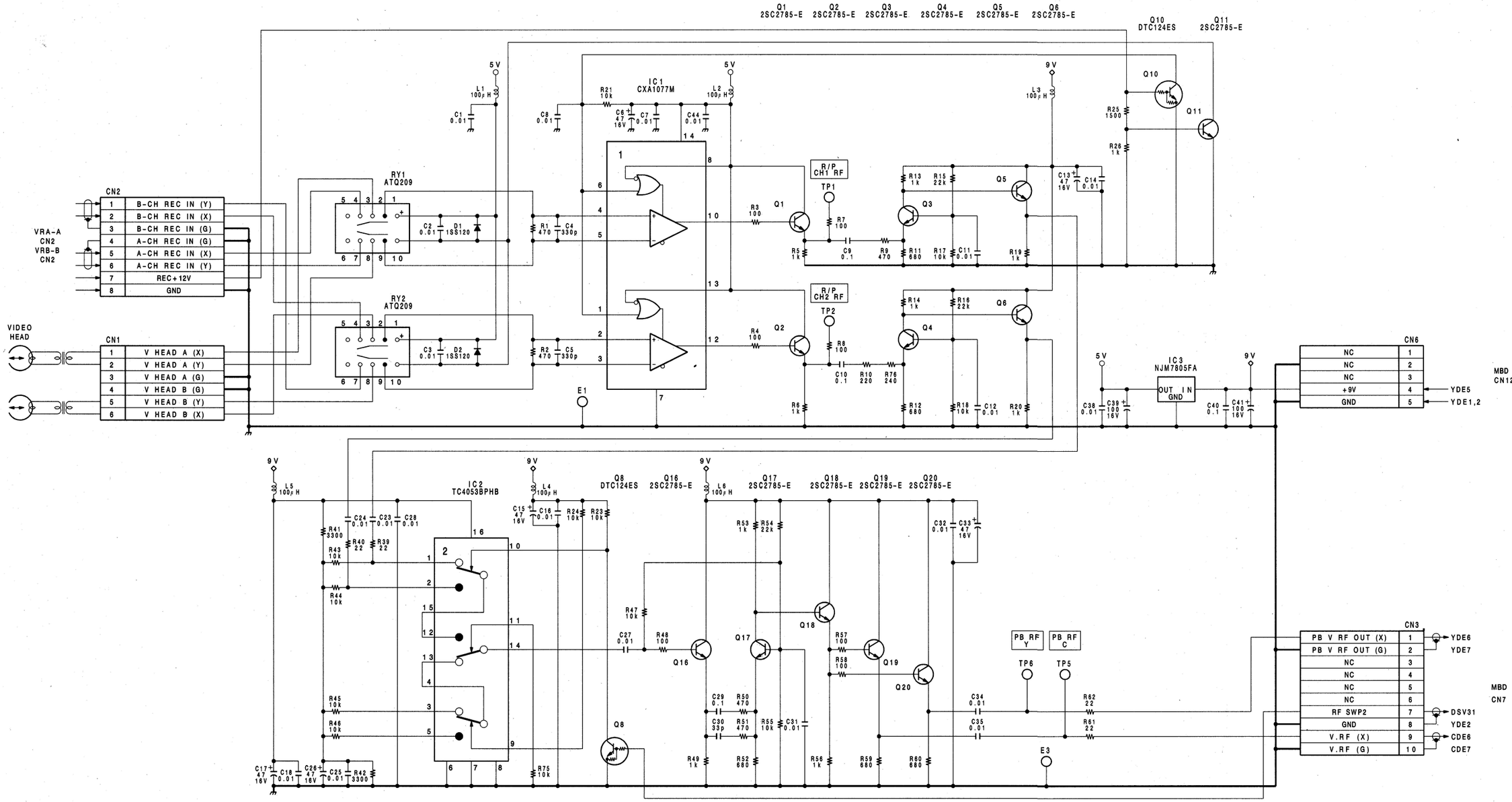



MMV800/800-A
MMV810/810-A
MMV802/802-A

**RA-MM01(RA) BOARD (2/2)**

14-77

# VP-MM01(PB) BOARD
## VIDEO PLAYBACK AMPLIFIER

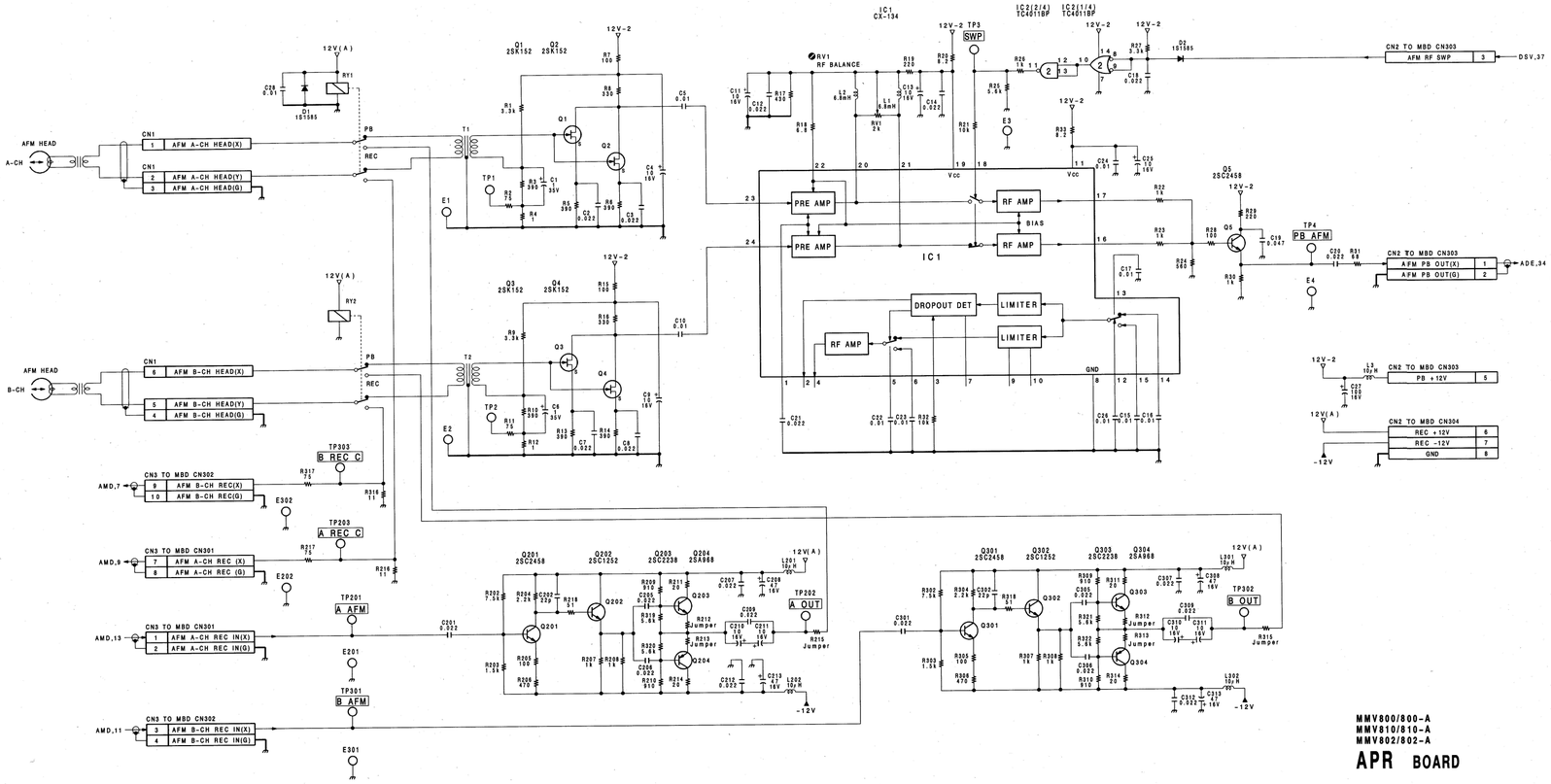



MMV800/800-A
MMV810/810-A
MMV802/802-A

# VP-MM01(PB) BOARD

APR RECORDING,PLAYBACK
RECORDING,PLAYBACK APR

# APR BOARD
## AUDIO FM REC/PB AMPLIFIER

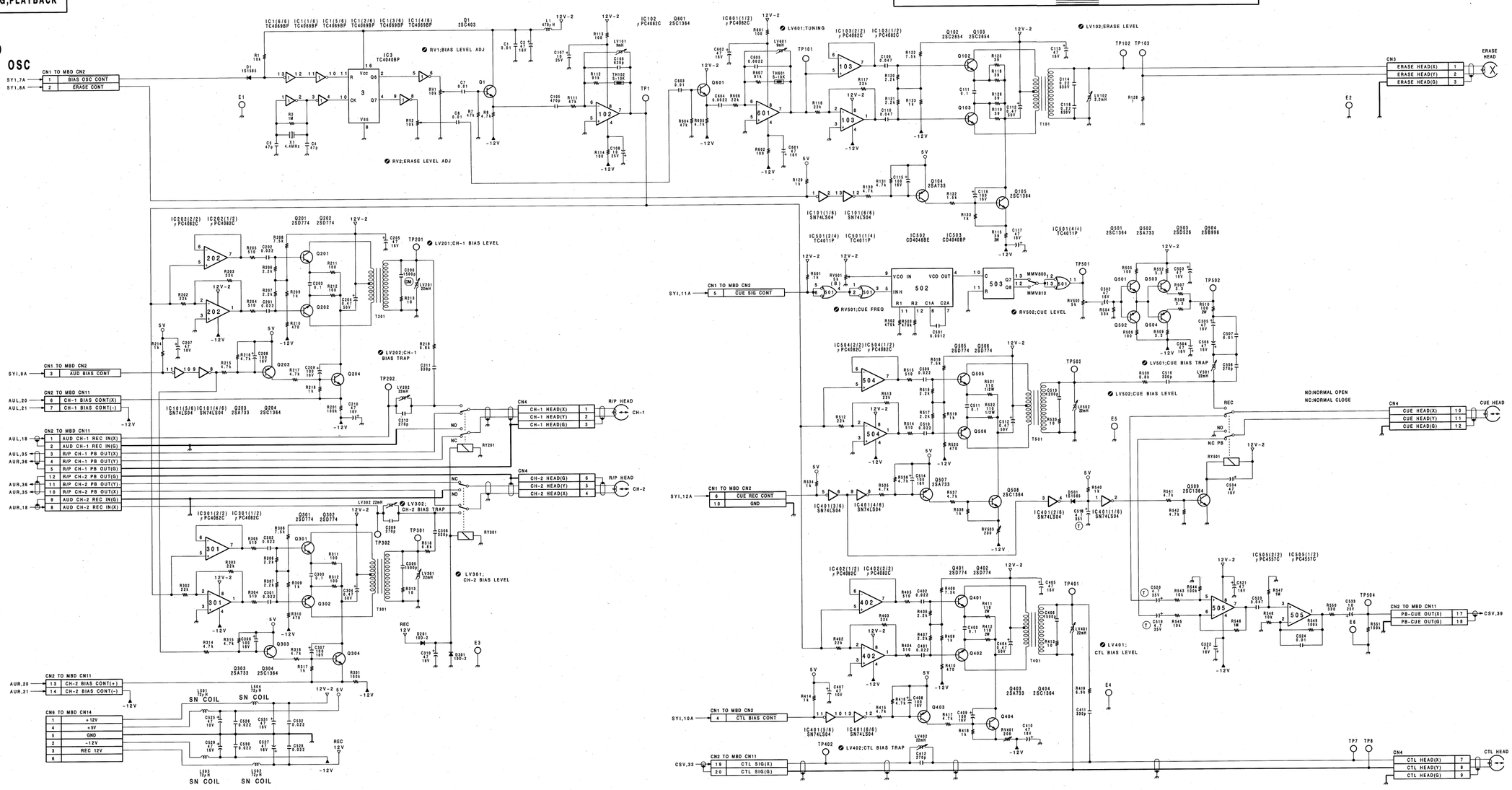



MMV800/800-A
MMV810/810-A
MMV802/802-A
APR BOARD


14-79
14-79

RECORDING,PLAYBACK BIAS BIAS RECORDING,PLAYBACK

# BIAS BOARD
## AUDIO BIAS OSC




MMV800/800-A
MMV810/810-A
MMV802/802-A

# BIAS BOARD

# SECTION 15
# SPARE PARTS

## 15-1. NOTES ON SPARE PARTS

**(1) Safety Related Components Warning**

Components marked with ⚠ on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation.

Replace these components with Sony parts whose part numbers appear in this manual or in service bulletins and service manual supplements published by Sony.

**(2) Standardization of Parts**

Spare parts supplied from Sony Parts Center may not always be identical with the parts actually in use due to accommodating the improved parts and/or engineering changes or standardization of genuine parts.

This manual's exploded views and electrical spare parts list indicate the part numbers of the standardized genuine parts at present.

**(3) Stock of Part**

Parts marked with "o" in the SP(Supply code)column of the spare parts list are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional time for delivery.

**(4) Units for Capacitors, Inductors and resistors**

The following units may be assumed in schmatic diagrams, electrical parts list and exploded views unless otherwise specified.

Capacitor: μ F
Inductor : μ H
Resistor : Ω

**補修用部品注意事項**

(1) 安全重要部品

回路図、分解図、電気部品表中、⚠印の部品は安全性を維持するために重要な部品です。従ってこれらの部品を交換するときには必ず指定の部品と交換してください。

(2) 部品の共通化

ソニーから供給される部品はセットに実装されているものと異なることがあります。これは部品の共通化、改良等によるものです。

分解図や電気部品表には現時点での共通化された部品が記載されています。

(3) 部品の在庫

部品表のSP(Supply code)欄にOで示される部品は交換頻度が低い部品ですので在庫していないことがあり、納期が長くなることがあります。

(4) コンデンサ、インダクタ、抵抗の単位

回路図、分解図、電気部品表中、特に明記したものを除き、下記の単位は省略されています。

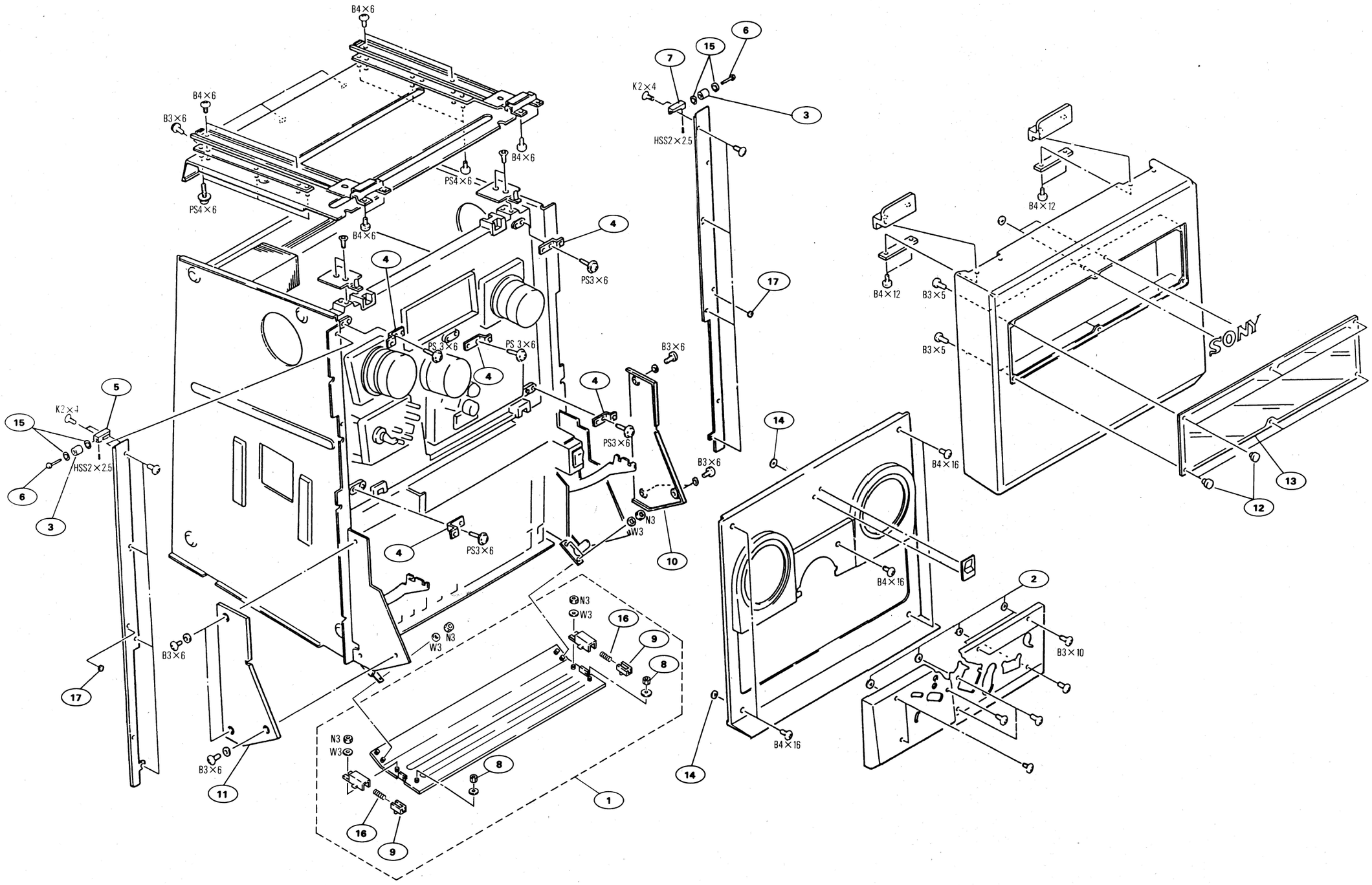
コンデンサ: μF
インダクタ: μH
抵抗 : Ω

## 15-2. EXPLODED VIEW

FRONT PANEL BLOCK

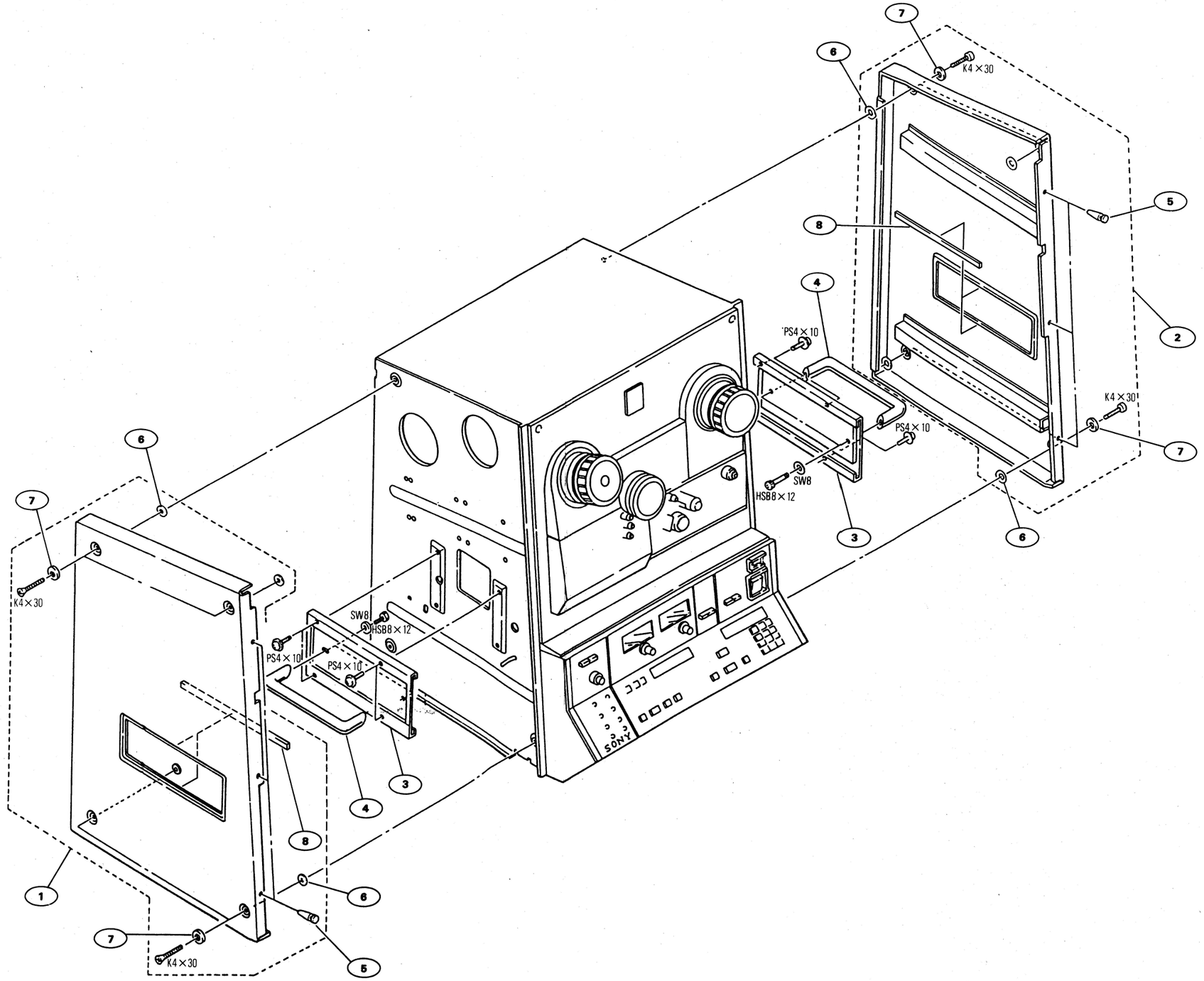
| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-6004-110-C | o | PANEL (1) ASSY, PCB INDICATION |
| 2 | 2-229-507-00 | s | WASHER |
| 3 | 2-985-141-01 | o | ROLLER |
| 4 | 2-985-150-02 | o | BRACKET, PANEL |
| 5 | 2-985-190-01 | o | RETAINER (LEFT), GUIDE ROLLER |
| 6 | 2-985-191-01 | o | SHAFT, ROLLER |
| 7 | 2-985-193-01 | o | RETAINER (RIGHT), GUIDE ROLLER |
| 8 | 3-657-842-01 | s | SPACER (3x4) |
| 9 | 3-673-883-00 | o | KNOB, LOCK |
| 10 | 3-673-917-00 | o | PLATE (RIGHT), ORNAMENTAL, PLATE |
| 11 | 3-673-918-00 | o | PLATE (LEFT), ORNAMENTAL, PLATE |
| 12 | 3-673-944-00 | o | NUT (M3), ORNAMENTAL |
| 13 | 3-673-946-00 | o | GLASS, WINDOW |
| 14 | 3-673-968-00 | o | STOPPER, SCREW |
| 15 | 3-701-437-11 | s | WASHER |
| 16 | 4-864-521-00 | s | SPRING, COMPRESSION |
| 17 | 9-911-839-XX | o | RUBBER, STOPPER |

## Front Panel Block



| CABINET BLOCK | CABINET BLOCK |
|---|---|

## Cabinet Block






15-4

---

CABINET BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-6004-104-B | o | PANEL ASSY, ORNAMENTAL, LEFT |
| 2 | A-6004-105-B | o | PANEL ASSY, ORNAMENTAL, RIGHT |
| 3 | 2-295-984-02 | o | BRACKET, HANDLE |
| 4 | 2-295-985-00 | o | HANDLE |
| 5 | 3-644-002-00 | o | CUSHION, HANDLE |
| 6 | 3-650-537-00 | o | WASHER |
| 7 | 3-703-225-00 | s | WASHER (4 mm), ORNAMENTAL |
| 8 | 9-911-837-XX | s | CUSHION |

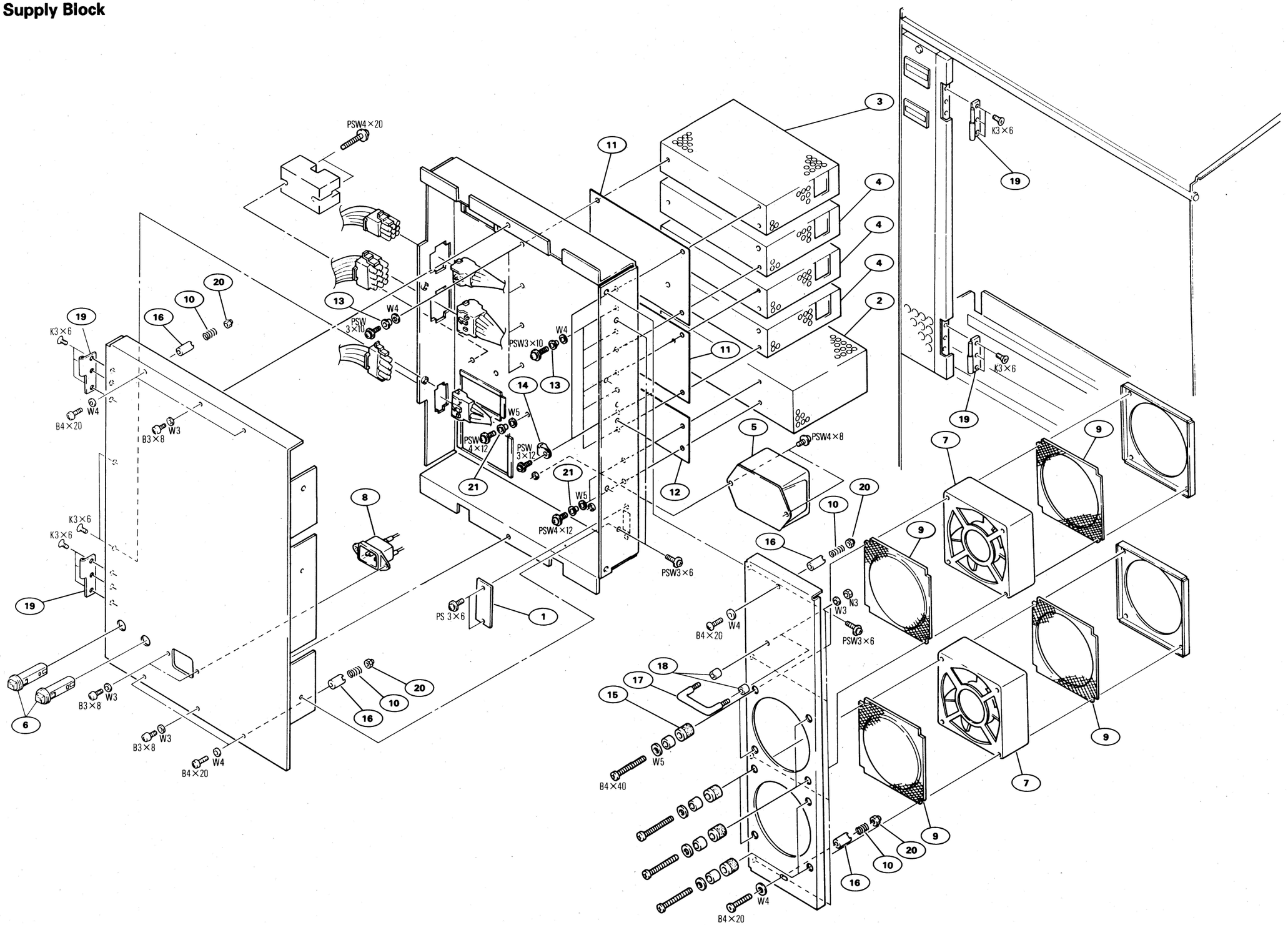
---

POWER SUPPLY BLOCK

---

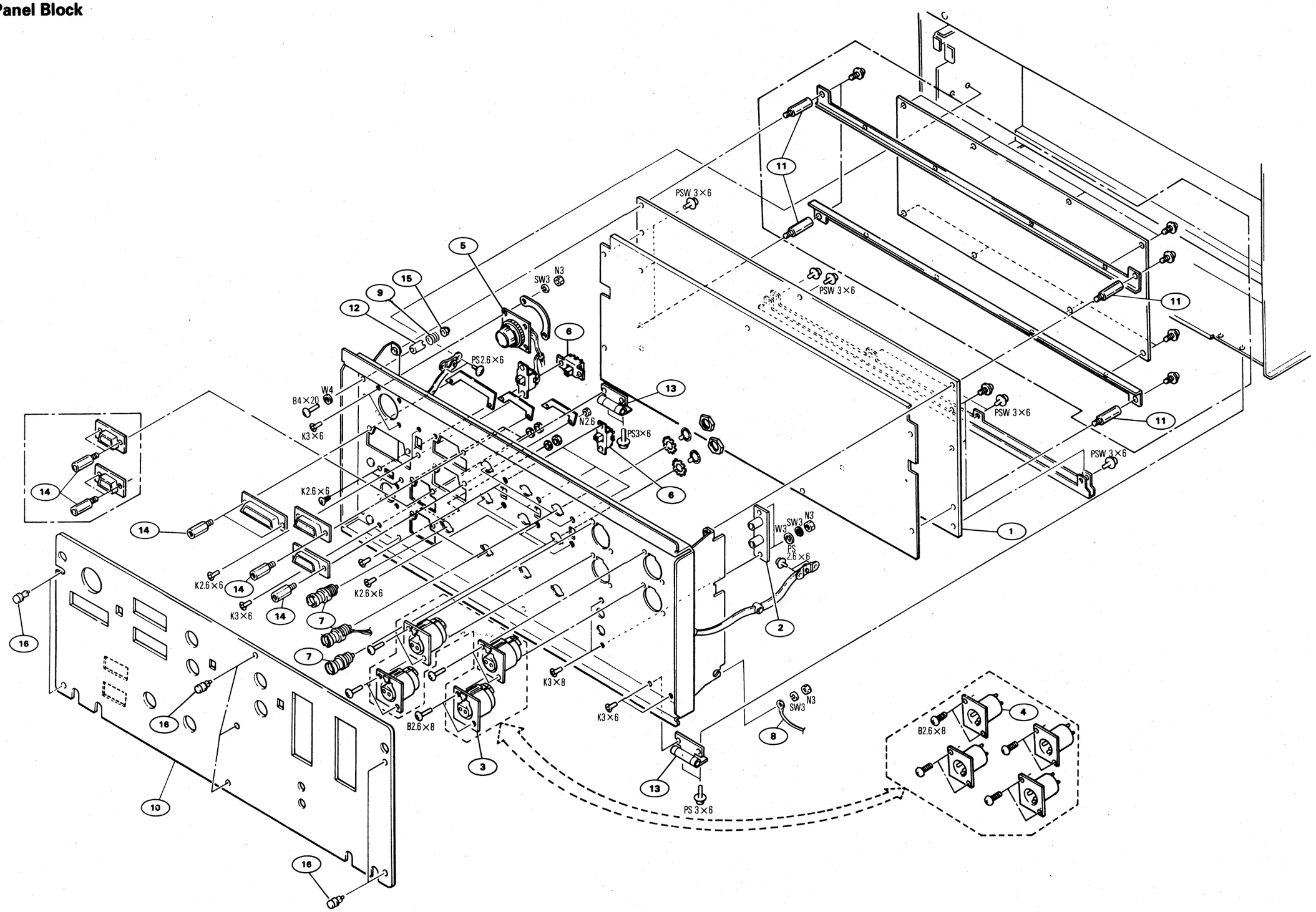
| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8616-018-B | o | MOUNTED PCB, PFJ |
| 2 | 1-413-476-12 | s | SWITCHING REGULATOR (EWS120-12) |
| 3 | 1-413-477-12 | s | SWITCHING REGULATOR (EWS50-5) |
| 4 | 1-413-581-11 | s | SWITCHING REGULATOR |
| 5 | 1-424-253-11 | o | FILTER, NOISE (ZHC-11) |
| 6 | 1-532-974-41 | s | CIRCUIT PROTECTOR |
| 7 | 1-541-327-11 | s | FAN, DC |
| 8 | 1-580-375-11 | s | INLET 3P |
| 9 | 2-252-609-00 | o | COVER, FAN |
| 10 | 2-985-194-01 | o | SPRING, COMPRESSION |
| 11 | 2-985-197-01 | o | SHEET (HR10-D), INSULATING |
| 12 | 2-985-306-01 | o | SHEET (ES-120), INSULATING |
| 13 | 2-990-174-01 | o | WASHER (NO.310), INSULATING |
| 14 | 3-001-707-01 | o | HOLDER, WIER |
| 15 | 3-630-837-00 | o | BUSHING, STANDBY LAMP |
| 16 | 3-651-849-00 | o | SPACER, PANEL |
| 17 | 3-657-653-00 | o | ARM, GUARD |
| 18 | 3-657-654-00 | o | RING, ORNAMENTAL |
| 19 | 3-673-774-11 | o | HINGE |
| 20 | 3-680-316-00 | s | NUT (M4), STOPPER |
| 21 | 4-363-110-00 | s | BUSHING, INSULATING |

## Power Supply Block



| CONNECTOR PANEL BLOCK | CONNECTOR PANEL BLOCK |
|---|---|

## Connector Panel Block






15-8

---

CONNECTOR PANEL BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8615-102-B | o | COMPLETE PCB, RP |
| 2 | 1-507-142-XX | o | 2P PIN JACK |
| 3 | 1-509-176-31 | s | CONNECTOR (RECEPTACLE) 3P (J1) |
| 4 | 1-509-184-31 | s | CONNECTOR (RECEPTACLE) 3P (U7, E32) |
| 5 | 1-509-329-12 | s | CONNECTOR (R-M) |
| 6 | 1-552-078-00 | s | SWITCH, SLIDE |
| 7 | 1-561-781-21 | s | CONNECTOR, BNC (RECEPTACLE) |
| 8 | 1-575-508-13 | o | WIRE, EARTH (CONNECTOR PANEL) |
| 9 | 2-985-194-01 | o | SPRING, COMPRESSION |
| 10 | 2-985-305-01 | o | LABEL, CONNECTOR |
| 11 | 2-985-312-01 | o | SCREW, PANEL |
| 12 | 3-651-849-00 | o | SPACER, PANEL |
| 13 | 3-651-875-00 | s | HINGE, FRONT |
| 14 | 3-673-910-00 | o | SCREW, CONNECTOR |
| 15 | 3-680-316-00 | s | NUT (M4), STOPPER |
| 16 | 4-812-134-11 | s | RIVET NYLON, 3.5 |

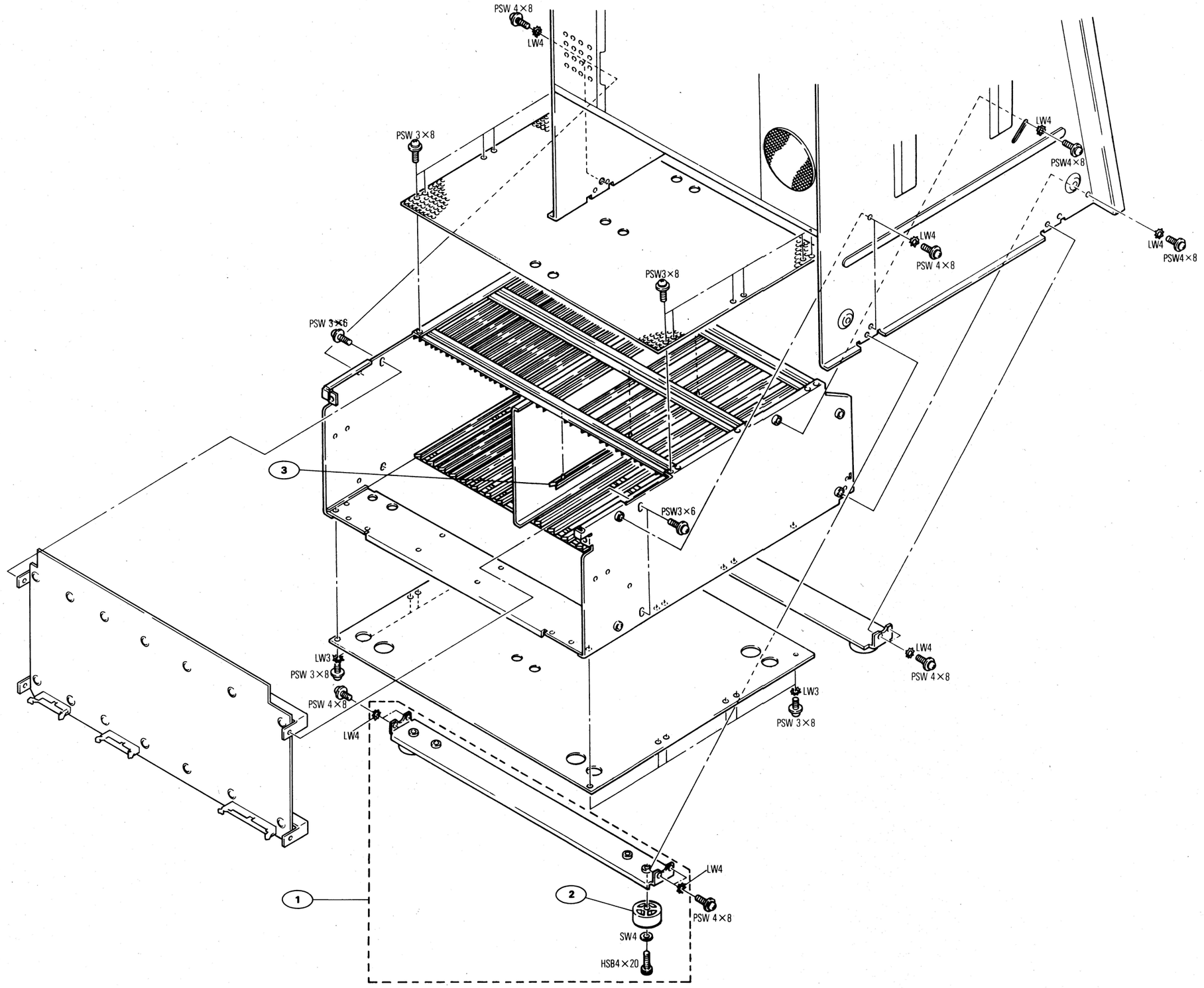
---

CARD RACK BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-6004-107-B | o | LEG ASSY |
| 2 | X-4836-202-X | s | FOOT ASSY |
| 3 | 3-673-676-31 | o | RAIL, PC BOARD GUIDE |

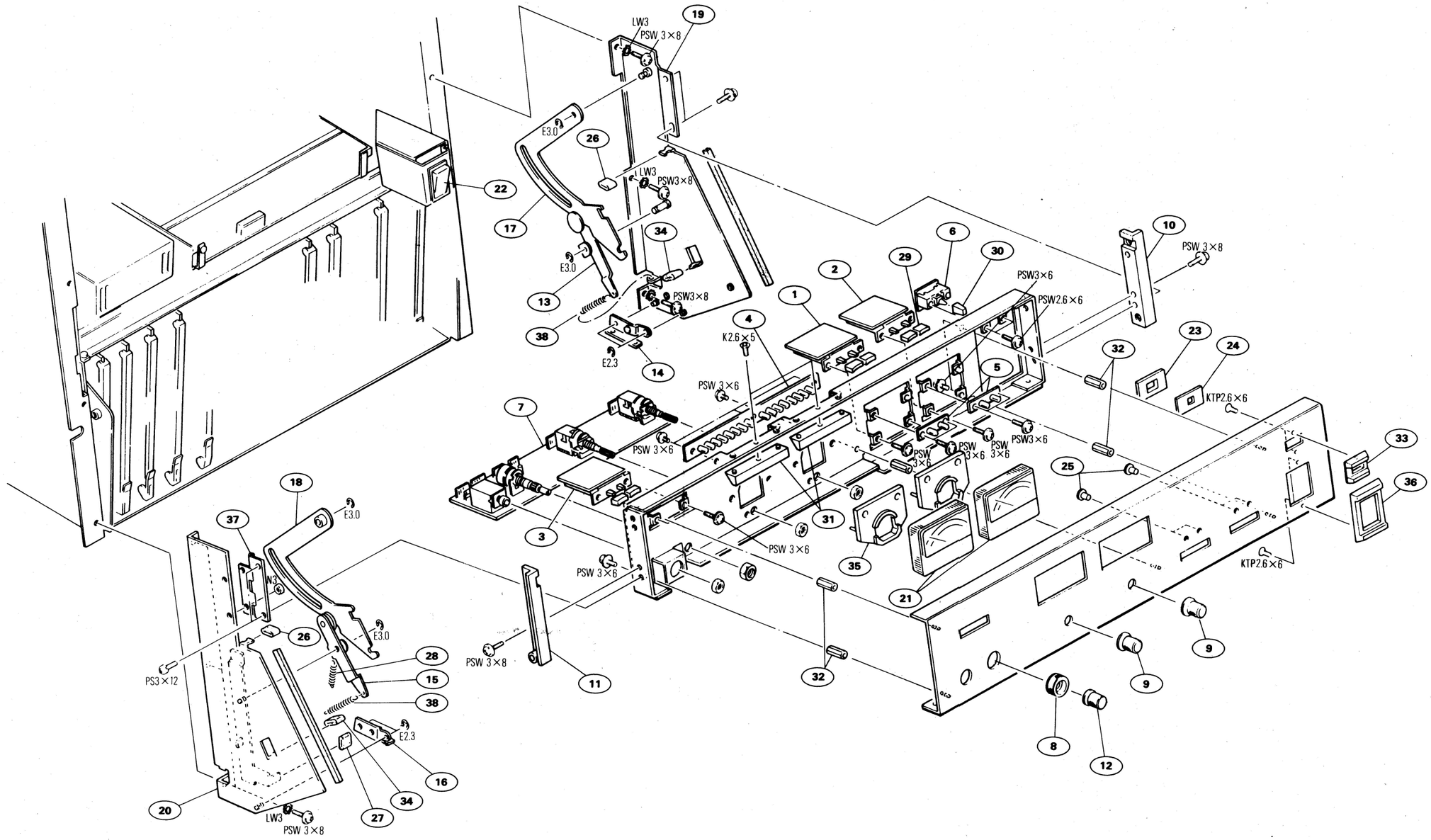
## Card Rack Block






15-11

## Meter Panel Block






15-12

---

METER PANEL BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8616-010-B | o | MOUNTED PCB, MS-SW |
| 2 | A-8616-011-B | o | MOUNTED PCB, NA-SW |
| 3 | A-8616-012-B | o | MOUNTED PCB, PS-SW |
| 4 | A-8616-013-B | o | MOUNTED PCB, LED-1 |
| 5 | A-8616-014-B | o | MOUNTED PCB, LED-2 |
| 6 | A-8616-015-B | o | MOUNTED PCB, RL-SW |
| 7 | A-8616-105-B | o | MOUNTED PCB, VR |
| 8 | X-3668-056-0 | s | KNOB (W) ASSY, CONTROL |
| 9 | X-3673-635-0 | s | KNOB (1) ASSY, CONTROL |
| 10 | X-3673-638-0 | o | SASH (RIGHT) ASSY, METER |
| 11 | X-3673-639-0 | o | SASH (LEFT) ASSY, METER |
| 12 | X-3673-650-0 | s | KNOB (2) ASSY, CONTROL |
| 13 | X-3673-657-0 | o | SUPPORT (RIGHT) ASSY, ROLLER |
| 14 | X-3673-658-0 | o | SUPPORT (RIGHT) ASSY, STAY |
| 15 | X-3673-659-0 | o | SUPPORT (LEFT) ASSY, ROLLER |
| 16 | X-3673-660-0 | o | SUPPORT (LEFT) ASSY, STAY |
| 17 | X-3673-661-0 | o | ARM (RIGHT) ASSY, CAM |
| 18 | X-3673-662-0 | o | ARM (LEFT) ASSY, CAM |
| 19 | X-3673-663-0 | o | SUPPORT (RIGHT) ASSY, PANEL |
| 20 | X-3673-664-0 | o | SUPPORT (LEFT) ASSY, PANEL |
| 21 | 1-520-450-12 | s | METER (VU) |
| 22 | 1-554-066-00 | s | SWITCH, ROCKER (AC POWER) |
| 23 | 2-252-615-00 | o | CUSHION, SWITCH |
| 24 | 2-252-623-00 | o | PLATE, SWITCH, LEVER |
| 25 | 3-437-110-31 | s | COVER, LAMP |
| 26 | 3-483-026-00 | s | RETAINER, THRUST, MOTOR |
| 27 | 3-483-026-31 | o | BRACKET, MOTOR THRUST |
| 28 | 3-506-042-XX | s | SPRING, TENSION |
| 29 | 3-651-946-00 | s | KNOB, PUSH BUTTON |
| 30 | 3-668-028-00 | s | KNOB (SMALL), LEVER SWITCH |
| 31 | 3-673-653-00 | o | MIRROR |
| 32 | 3-673-707-11 | o | SUPPORT |
| 33 | 3-673-769-00 | o | GUARD, SWITCH (B) |
| 34 | 3-673-784-00 | o | CAP |
| 35 | 3-673-813-00 | o | HOLDER, METER |
| 36 | 3-673-842-00 | o | GUARD, POWER SWITCH |
| 37 | 3-673-922-00 | o | HINGE |
| 38 | 3-673-929-01 | s | SPRING, TENSION |

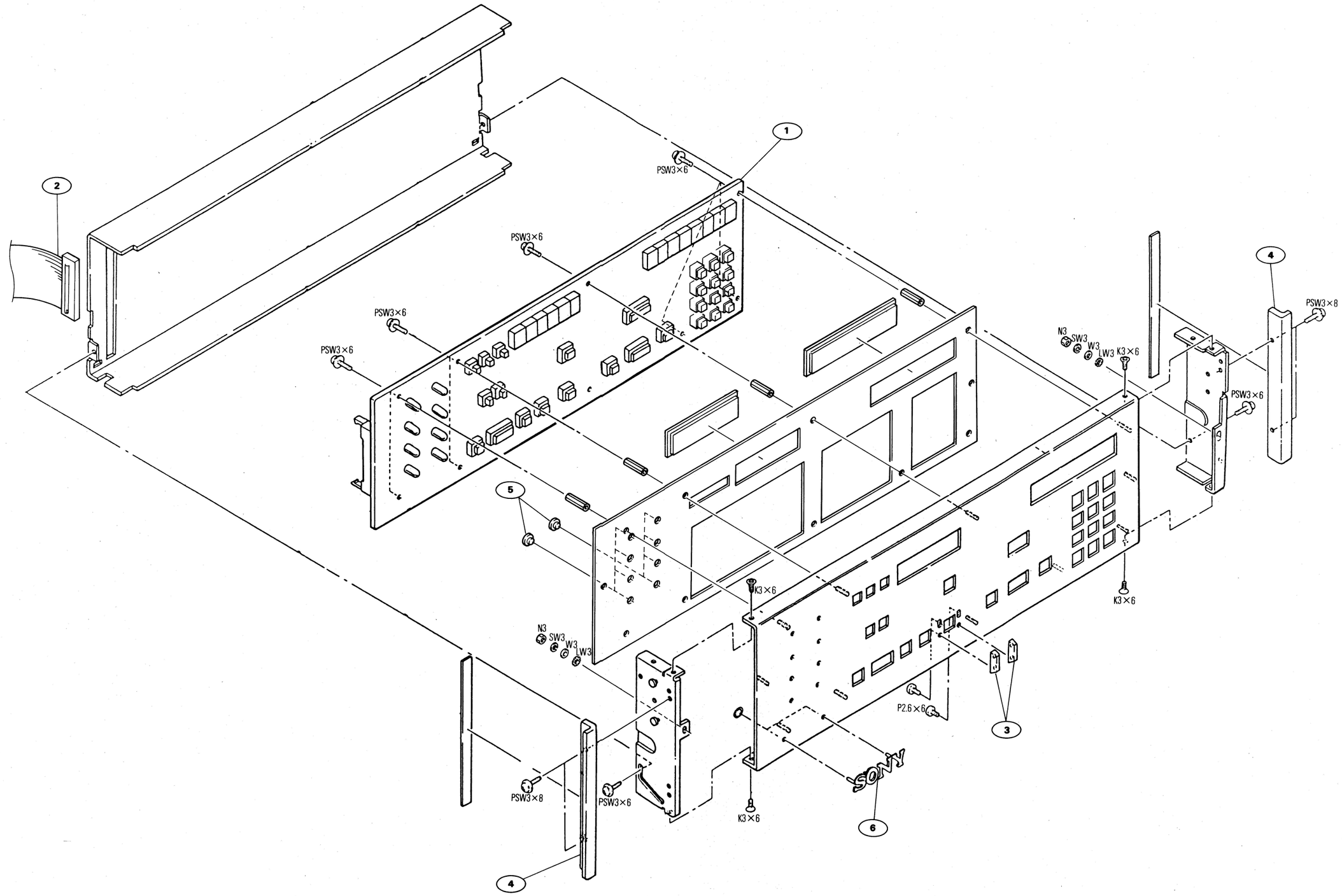
---

CONTROL PANEL BLOCK

---

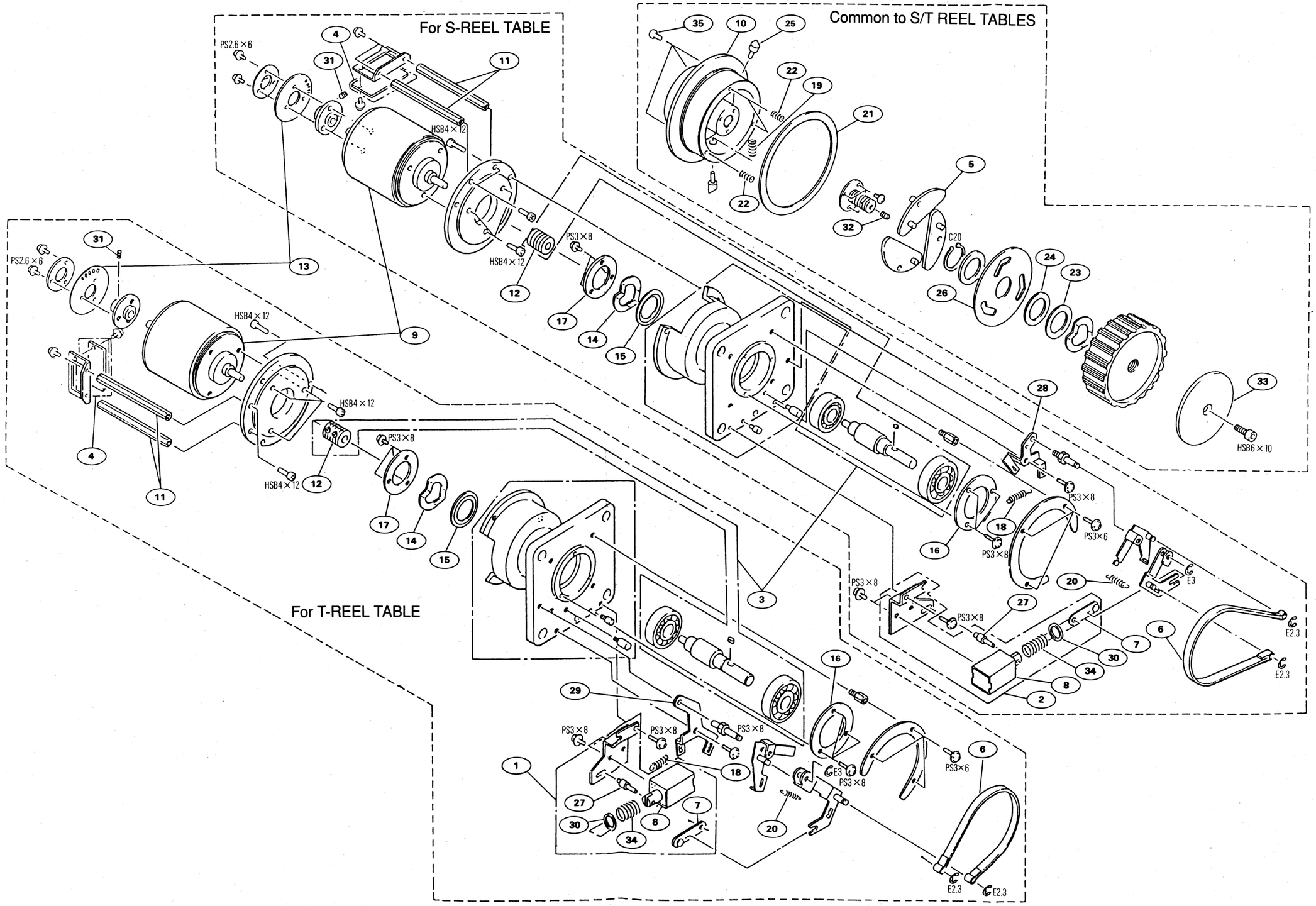
| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8616-221-A | o | MOUNTED PCB, KBD (2) |
| 2 | 1-557-768-11 | s | CABLE ASSY, FLAT |
| 3 | 2-295-991-00 | o | GUARD, SWITCH |
| 4 | 2-360-702-00 | o | SASH, CONTROL PANEL |
| 5 | 3-437-110-01 | o | COVER, LAMP |
| 6 | 4-849-833-00 | o | EMBLEM, SONY |

## Control Panel Block



| REEL TABLE BLOCK | REEL TABLE BLOCK |
|---|---|

## Reel Table Block






15-16

---

REEL TABLE BLOCK

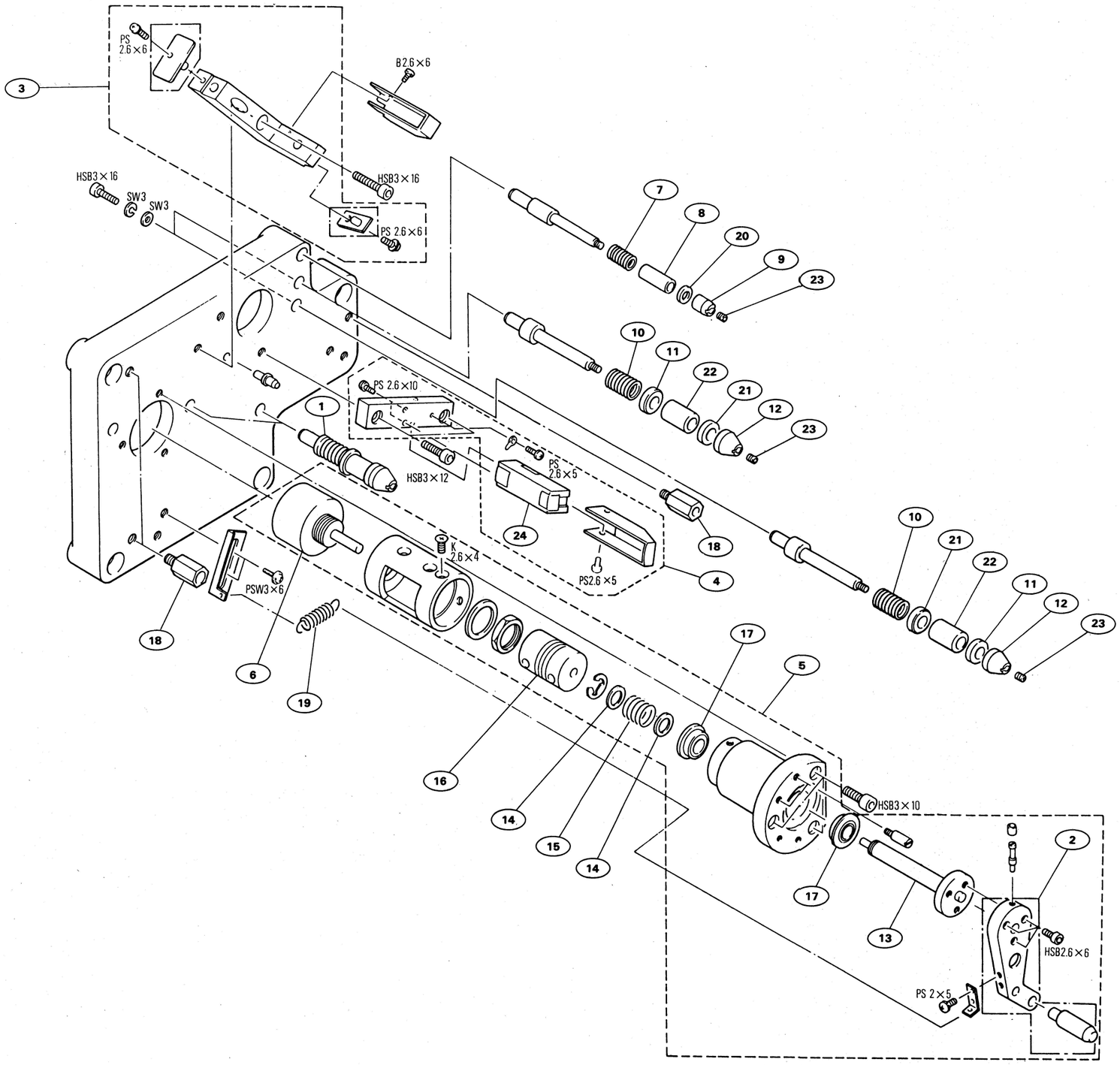
---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8604-026-A | s | SOLENOID ASSY, S |
| 2 | A-8604-032-A | s | SOLENOID ASSY, T |
| 3 | A-8604-193-A | s | SHAFT ASSY, REEL |
| 4 | A-8616-007-B | o | MOUNTED PCB, RJ |
| 5 | X-3651-315-0 | o | CLAW ASSY, REEL |
| 6 | X-3673-601-0 | s | BAND ASSY, BRAKE |
| 7 | X-3673-608-2 | o | JOIN ASSY |
| 8 | 1-454-315-00 | s | SOLENOID, PLUNGER |
| 9 | 1-541-268-11 | s | MOTOR, DC |
| 10 | 2-985-096-02 | o | DRUM, REEL |
| 11 | 2-985-099-01 | o | SUPPORT, SENSOR |
| 12 | 2-985-103-01 | o | RING (3085M-6-6), CAP, HELICAL |
| 13 | 2-985-105-02 | o | REEL (FG) |
| 14 | 2-985-110-01 | o | WASHER (BW-2), WAVE |
| 15 | 2-985-111-01 | o | SPACER |
| 16 | 2-985-112-01 | o | RETAINER, BEARING |
| 17 | 2-985-112-11 | o | RETAINER, BEARING |
| 18 | 2-985-113-01 | s | SPRING, TENSION |
| 19 | 3-558-760-00 | s | SPRING, COMPRESSION |
| 20 | 3-639-371-00 | s | SPRING, TENSION |
| 21 | 3-651-371-02 | o | SHEET, REEL |
| 22 | 3-651-375-00 | s | SPRING, COMPRESSION |
| 23 | 3-651-377-00 | o | SHEET, FRICTION |
| 24 | 3-651-378-00 | o | SHEET, FRECTION ADJUSTMENT |
| 25 | 3-673-680-00 | o | PIN, REEL STOPPER |
| 26 | 3-673-711-02 | o | PLATE, CAM, REEL |
| 27 | 3-673-810-00 | o | PIN, SOLENOID |
| 28 | 3-680-319-01 | o | PLATE (SUPPLY), STOPPER |
| 29 | 3-680-320-01 | o | PLATE (TAKE-UP), STOPPER |
| 30 | 3-701-447-21 | s | WASHER, 10 |
| 31 | 3-701-506-01 | s | SET SCREW, DOUBLE POINT, (M3x4) |
| 32 | 3-701-512-01 | s | SET SCREW, DOUBLE POINT, (M4x8) |
| 33 | 3-714-508-11 | o | COVER, REEL |
| 34 | 4-836-109-00 | s | SPRING, COMPRESSION |
| 35 | 4-909-086-01 | s | SHAFT, ADJUSTMENT, HIGH |

SUPPLY TENSION REGULATOR & GUIDE ROLLER BLOCK (FOR MMV800)

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8604-211-A | s | GUIDE, TAPE |
| 2 | A-8604-015-A | s | ARM (S) ASSY, TENSION REGULATOR |
| 3 | A-8607-004-A | s | SENSOR ASSY, TAPE |
| 4 | A-8607-026-A | s | HEAD ASSY, FULL ERASE |
| 5 | A-8607-025-A | s | TENSION REGULATOR (S) ASSY |
| 6 | 1-230-678-11 | s | POTENTIOMETER |
| 7 | 2-985-008-01 | o | SPRING, COMPRESSION |
| 8 | 2-985-010-01 | s | SLEEVE, GUIDE, LAP |
| 9 | 2-985-011-01 | o | NUT (D), GUIDE, TAPE |
| 10 | 2-985-013-01 | o | SPRING, COMPRESSION |
| 11 | 2-985-014-01 | o | FLANG (LARGE), GUIDE |
| 12 | 2-985-016-01 | o | NUT, GUIDE, TAPE |
| 13 | 2-985-019-01 | o | SHAFT, TENSION REGULATOR |
| 14 | 2-985-020-01 | o | RING |
| 15 | 2-985-021-01 | o | SPRING, COMPRESSION |
| 16 | 2-985-023-01 | o | RING (ACRM-050), CAP, HELICAL |
| 17 | 2-985-024-01 | o | BEARING (FLANGE), BALL |
| 18 | 2-985-183-01 | o | SUPPORT, PANEL |
| 19 | 2-985-230-01 | s | SPRING, TENSION |
| 20 | 2-985-236-01 | s | FLANGE (SMALL), GUIDE |
| 21 | 2-985-237-01 | s | FLANGE (LARGE), GUIDE |
| 22 | 2-985-297-01 | s | SLEEVE, GUIDE (MMV800) |
| 23 | 2-990-375-01 | s | BOLT M3x6, HEXAGON SOCKET |
| 24 | 8-825-771-51 | s | HEAD, FULL ERASE (ES297-21) |

## Supply Tension Regulator & Guide Roller Block (For MMV800)

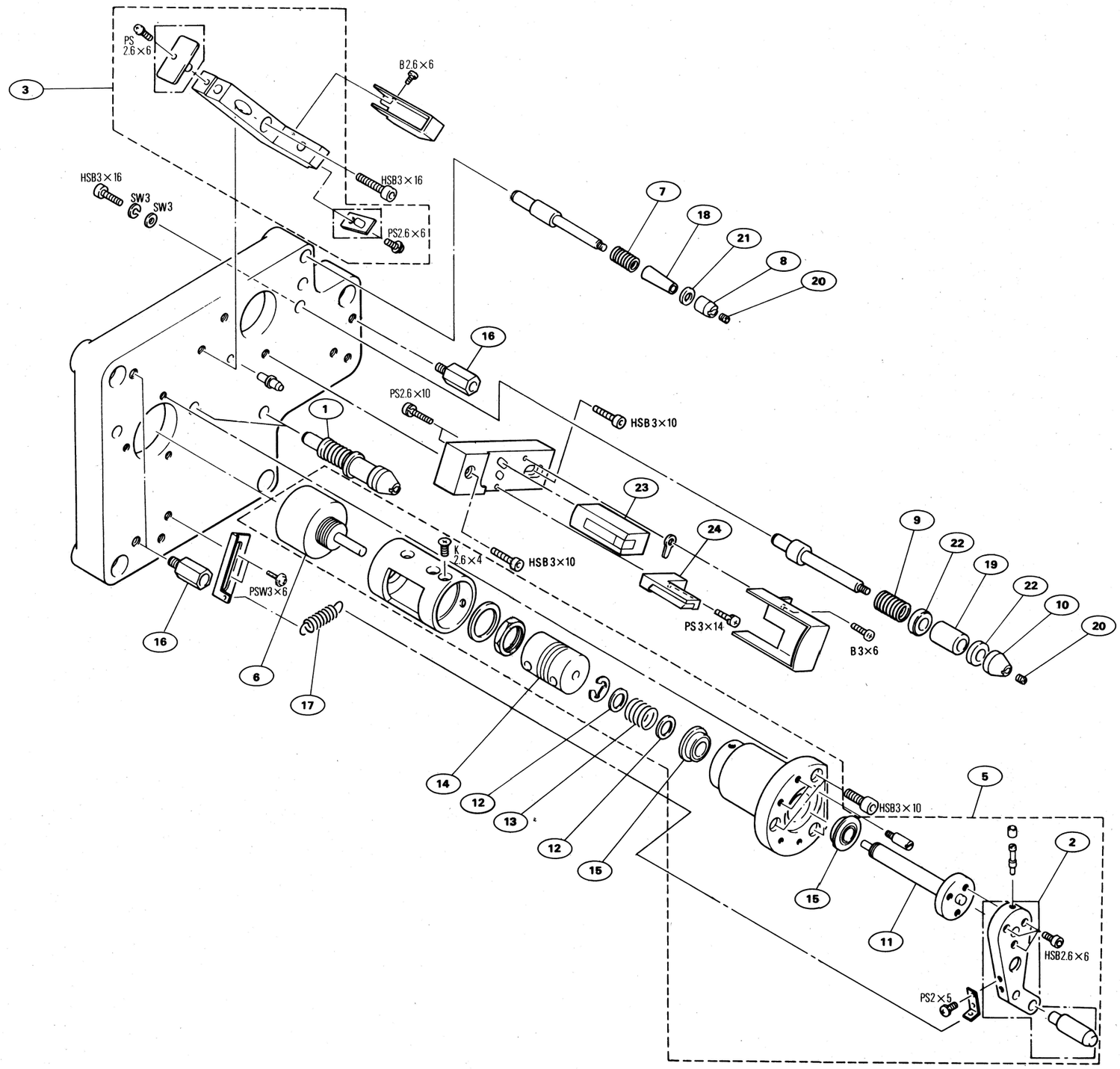





15-19

SUPPLY TENSION REGULATOR & GUIDE ROLLER BLOCK (FOR MMV810)

## Supply Tension Regulator & Guide Roller Block (For MMV810/802)





15-20

## SUPPLY TENSION REGULATOR & GUIDE ROLLER BLOCK (FOR MMV810)

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8604-211-A | s | GUIDE, TAPE |
| 2 | A-8604-226-B | s | ARM (S) ASSY, TENSION REGULATOR |
| 3 | A-8607-004-A | s | SENSOR ASSY, TAPE |
| 4 | A-8607-026-A | s | HEAD ASSY, FULL ERASE |
| 5 | A-8607-038-A | s | TENSION REGULATOR (S) ASSY |
| 6 | 1-230-678-11 | s | POTENTIOMETER |
| 7 | 2-985-008-01 | o | SPRING, COMPRESSION |
| 8 | 2-985-011-01 | o | NUT (D), GUIDE, TAPE |
| 9 | 2-985-013-01 | o | SPRING, COMPRESSION |
| 10 | 2-985-016-01 | o | NUT, GUIDE, TAPE |
| 11 | 2-985-019-01 | o | SHAFT, TENSION REGULATOR |
| 12 | 2-985-020-01 | o | RING |
| 13 | 2-985-021-01 | o | SPRING, COMPRESSION |
| 14 | 2-985-023-01 | o | RING (ACRM-050), CAP, HELICAL |
| 15 | 2-985-024-01 | o | BEARING (FLANGE), BALL |
| 16 | 2-985-183-01 | o | SUPPORT, PANEL |
| 17 | 2-985-230-01 | s | SPRING, TENSION |
| 18 | 2-986-101-01 | s | SLEEVE, LAP GUIDE |
| 19 | 2-986-108-01 | s | SLEEVE, GUIDE |
| 20 | 2-990-375-01 | s | BOLT M3x6, HEXAGON SOCKET |
| 21 | 3-688-807-01 | s | FLANGE, TAPE GUIDE |
| 22 | 3-715-812-02 | s | FLANGE |
| 23 | 8-825-771-51 | s | HEAD, FULL ERASE (ES297-21) |
| 24 | X-2986-064-1 | s | TAPE CLEANER |

---

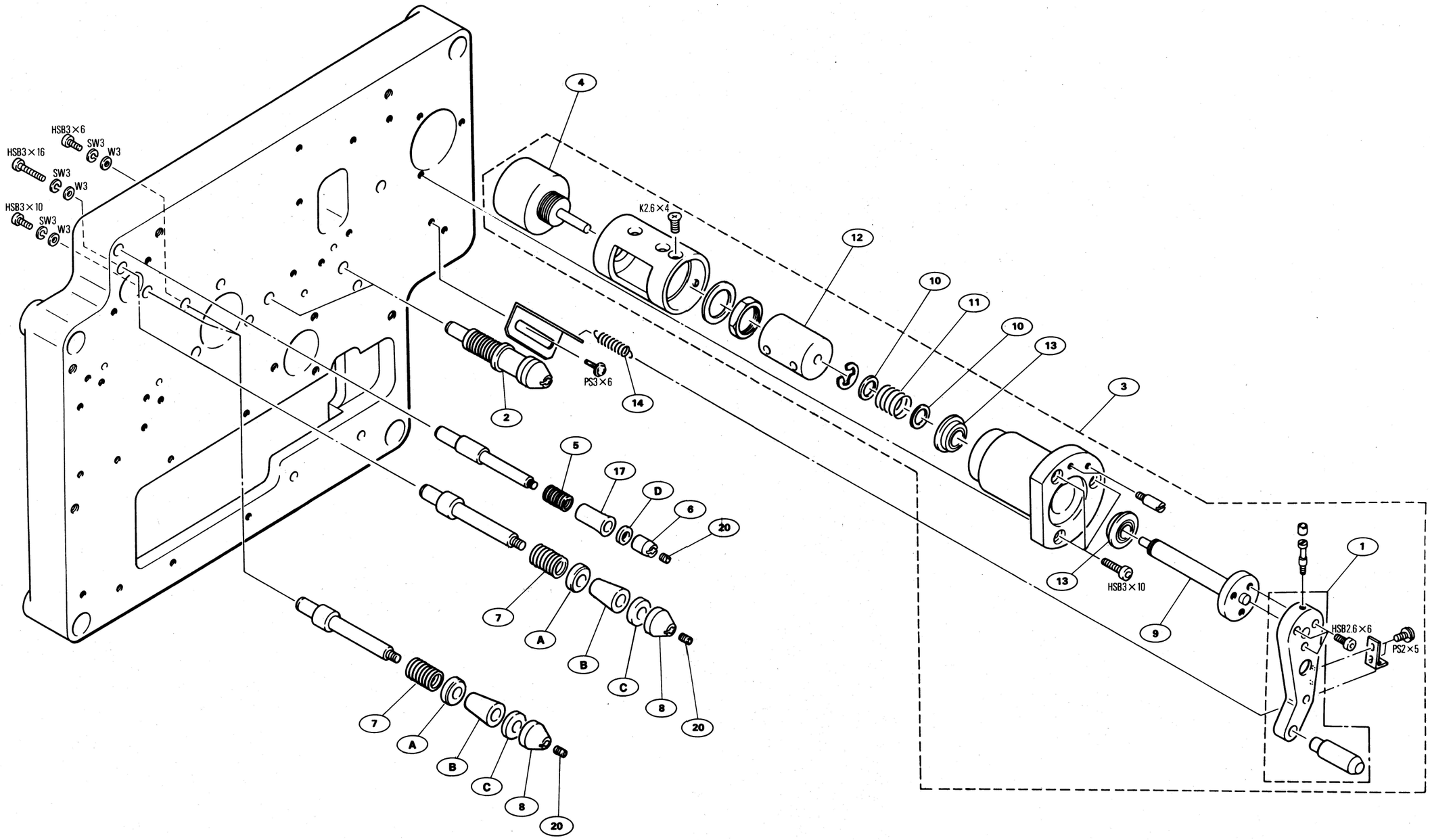
TAKE-UP TENSION REGULATOR & GUIDE ROLLER BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8604-015-A | s | ARM (T) ASSY, TENSION REGULATOR |
| 2 | A-8604-211-A | s | GUIDE, TAPE |
| 3 | A-8607-025-A | s | TENSION REGULATOR (T) ASSY |
| 4 | 1-230-678-11 | s | POTENTIOMETER |
| 5 | 2-985-008-01 | o | SPRING, COMPRESSION |
| 6 | 2-985-011-01 | o | NUT (D), GUIDE, TAPE |
| 7 | 2-985-013-01 | o | SPRING, COMPRESSION |
| 8 | 2-985-016-01 | o | NUT, GUIDE, TAPE |
| 9 | 2-985-019-01 | o | SHAFT, TENSION REGULATOR |
| 10 | 2-985-020-01 | o | RING |
| 11 | 2-985-021-01 | o | SPRING, COMPRESSION |
| 12 | 2-985-023-01 | o | RING (ACRM-050), CAP, HELICAL |
| 13 | 2-985-024-01 | o | BEARING (FLANGE), BALL |
| 14 | 2-985-033-01 | s | SPRING (T-1), TENSION |
| 17 | 2-985-309-01 | s | SLEEVE (50), GUIDE |
| 20 | 2-990-375-01 | s | BOLT M3x6, HEXAGON SOCKET |
| A | 2-985-237-01 | s | FLANGE, LARGE (MMV800) |
| | 3-715-812-02 | s | FLANGE (MMV810/802) |
| B | 2-985-327-01 | s | SLEEVE (A) (MMV800) |
| | 2-986-108-01 | s | SLEEVE (MMV810) |
| | 2-986-100-01 | s | SLEEVE (MMV802) |
| C | 2-985-237-01 | s | FLANGE, LARGE (MMV800) |
| | 3-715-812-02 | s | FLANGE (MMV810) |
| | 2-986-100-01 | s | SLEEVE (MMV802) |
| D | 2-985-236-01 | s | FLANGE, SMALL (MMV800) |
| | 3-688-807-01 | s | FLANGE, TAPE GUIDE (MMV810/802) |

TAKE-UP TENSION REGULATOR & GUIDE ROLLER BLOCK

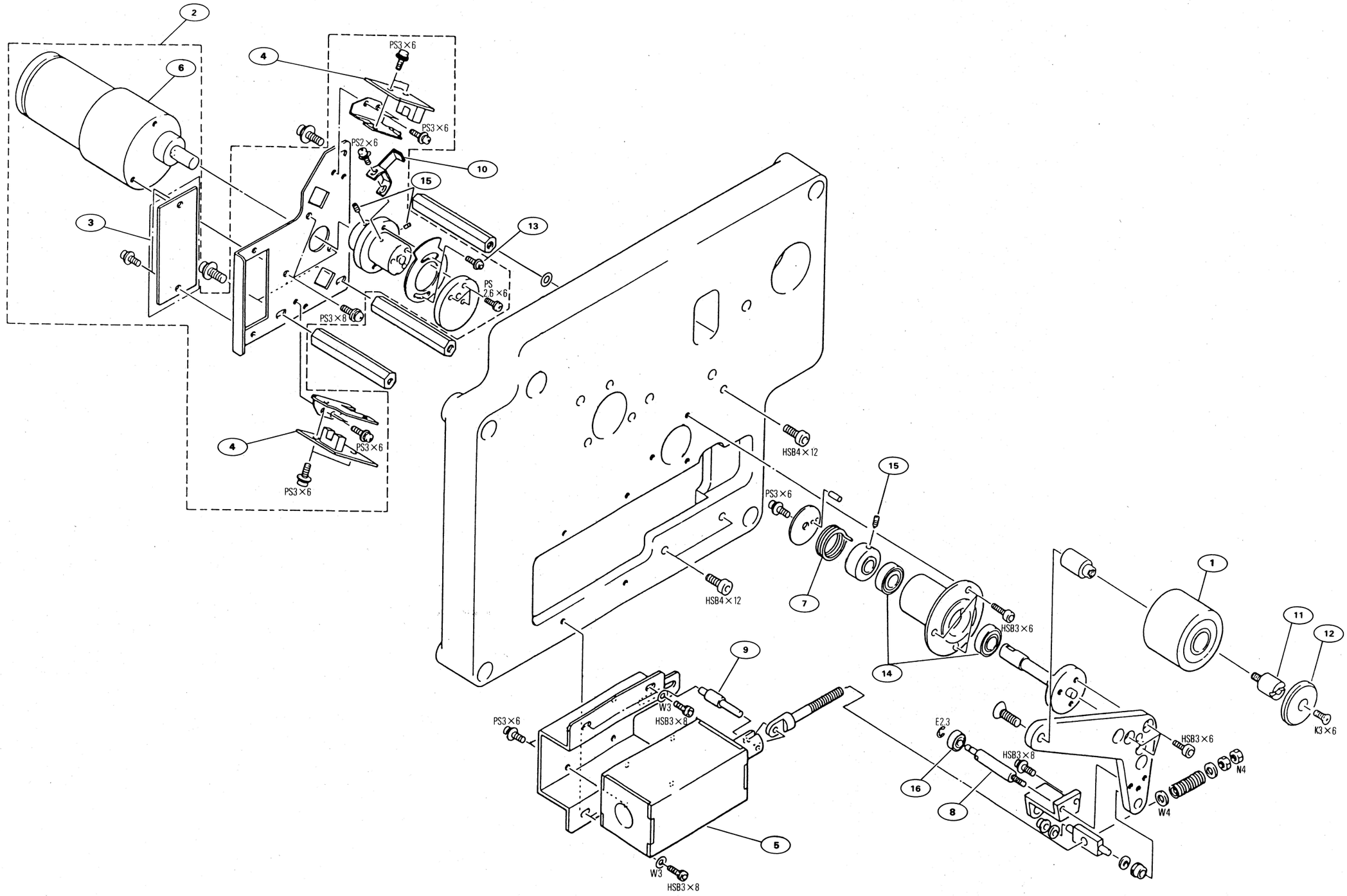
## Take-Up Tension Regulator & Guide Roller Block





15-23

## Pinch Press & Pinch Shift Block



---

PINCH PRESS & PINCH SHIFT BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8604-017-A | s | PINCH ROLLER ASSY |
| 2 | A-8607-027-A | s | SHIFT ASSY, PINCH |
| 3 | A-8616-005-B | o | MOUNTED PCB, PJ-1 |
| 4 | A-8616-006-B | o | MOUNTED PCB, PSS |
| 5 | 1-454-389-11 | s | SOLENOID, PLUNGER |
| 6 | 1-541-269-11 | s | MOTOR, GEAR |
| 7 | 2-985-063-01 | o | SPRING |
| 8 | 2-985-069-01 | o | SHAFT, ROLLER |
| 9 | 2-985-071-01 | o | PIN, SOLENOID |
| 10 | 2-985-078-01 | s | PLATE, PREVENTION, RETURN |
| 11 | 2-985-083-01 | o | STOPPER, SHAFT, PR |
| 12 | 2-985-084-01 | o | CAP, PR |
| 13 | 2-990-373-01 | s | BOLT M2x4, HEXAGON SOCKET |
| 14 | 3-656-948-00 | o | BEARING, BALL |
| 15 | 3-701-507-00 | s | SET SCREW, DOUBLE POINT, (M3x5) |
| 16 | 4-908-208-01 | o | BEARING, BALL |

---

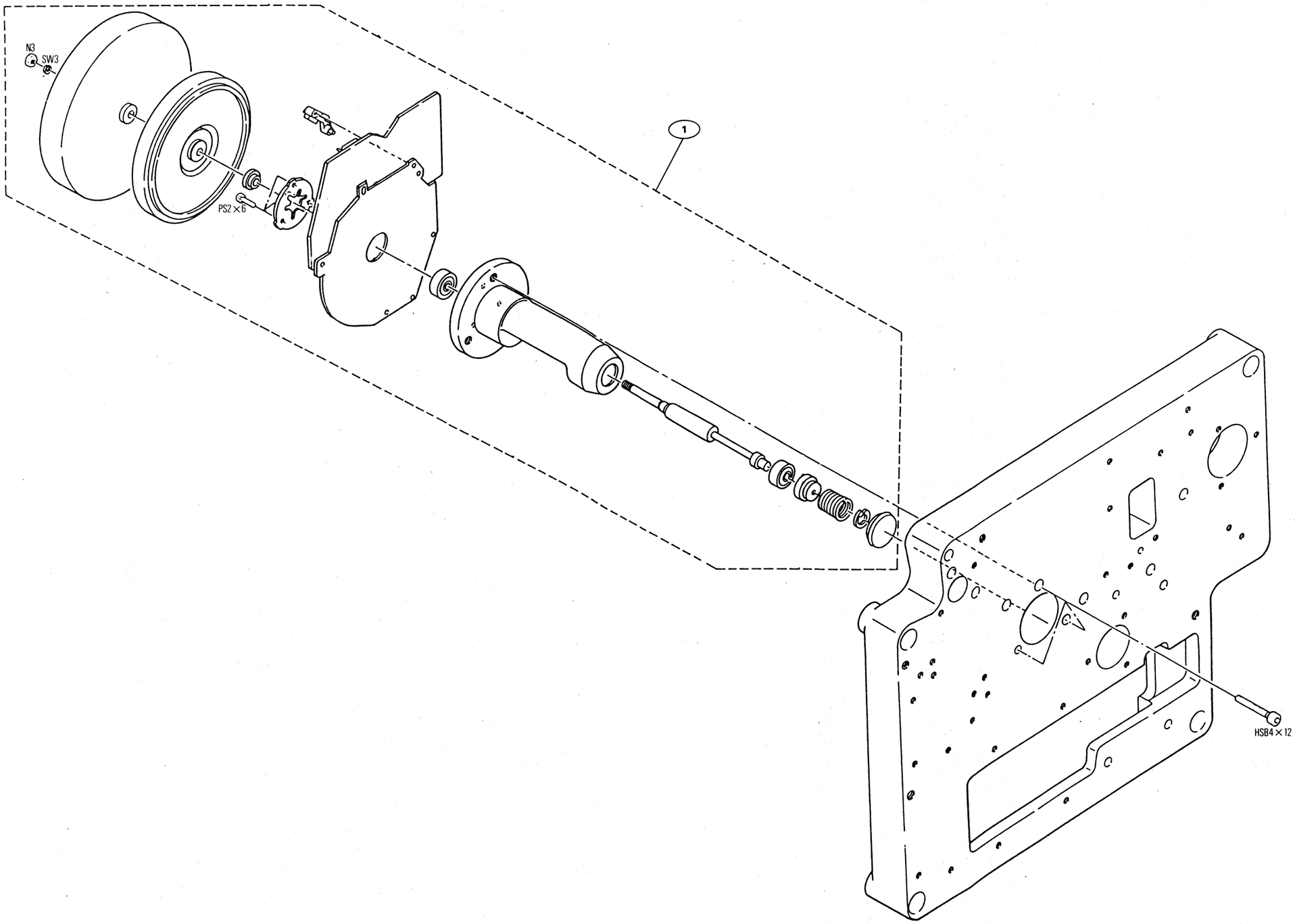
CAPSTAN BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8603-052-A | s | CAPSTAN ASSY |

| CAPSTAN BLOCK | CAPSTAN BLOCK |
|---|---|

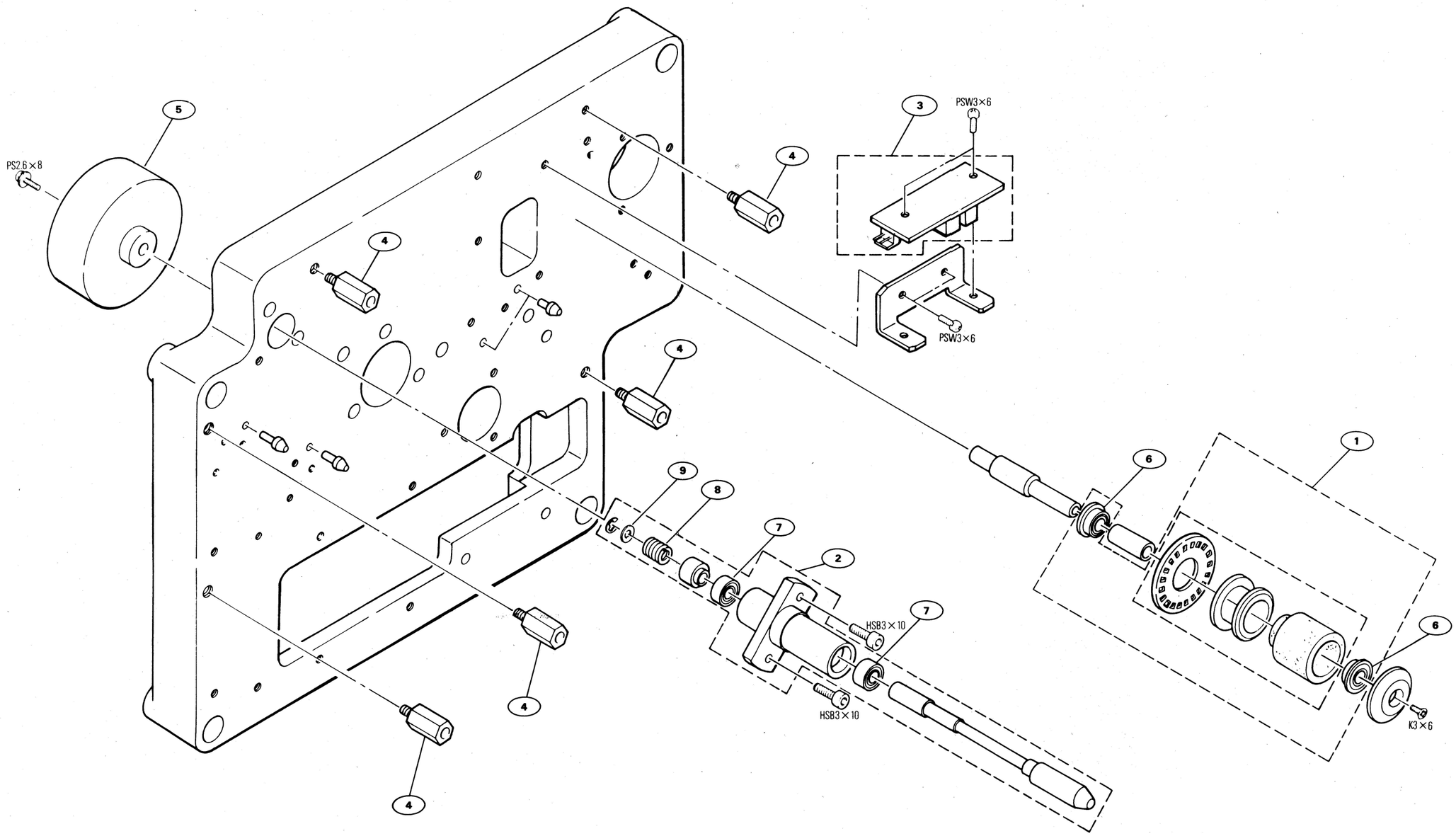
## Capstan Block






15-27

## IP Roller & Count Roller Block



---

IP ROLLER & COUNT ROLLER BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8604-192-A | s | ROLLER ASSY, COUNTER |
| 2 | A-8607-009-A | s | HOUSING ASSY, IP |
| 3 | A-8616-104-B | o | MOUNTED PCB, CR |
| 4 | 2-985-183-01 | o | SUPPORT, PANEL |
| 5 | 2-985-256-01 | o | FLYWHEEL (EP), IP |
| 6 | 3-656-932-00 | s | BEARING (LF950ZZ), BALL |
| 7 | 3-659-213-00 | s | BEARING, BALL |
| 8 | 3-663-116-00 | o | SPRING, COMPRESSION |
| 9 | 3-701-443-21 | s | WASHER, 5 mm |

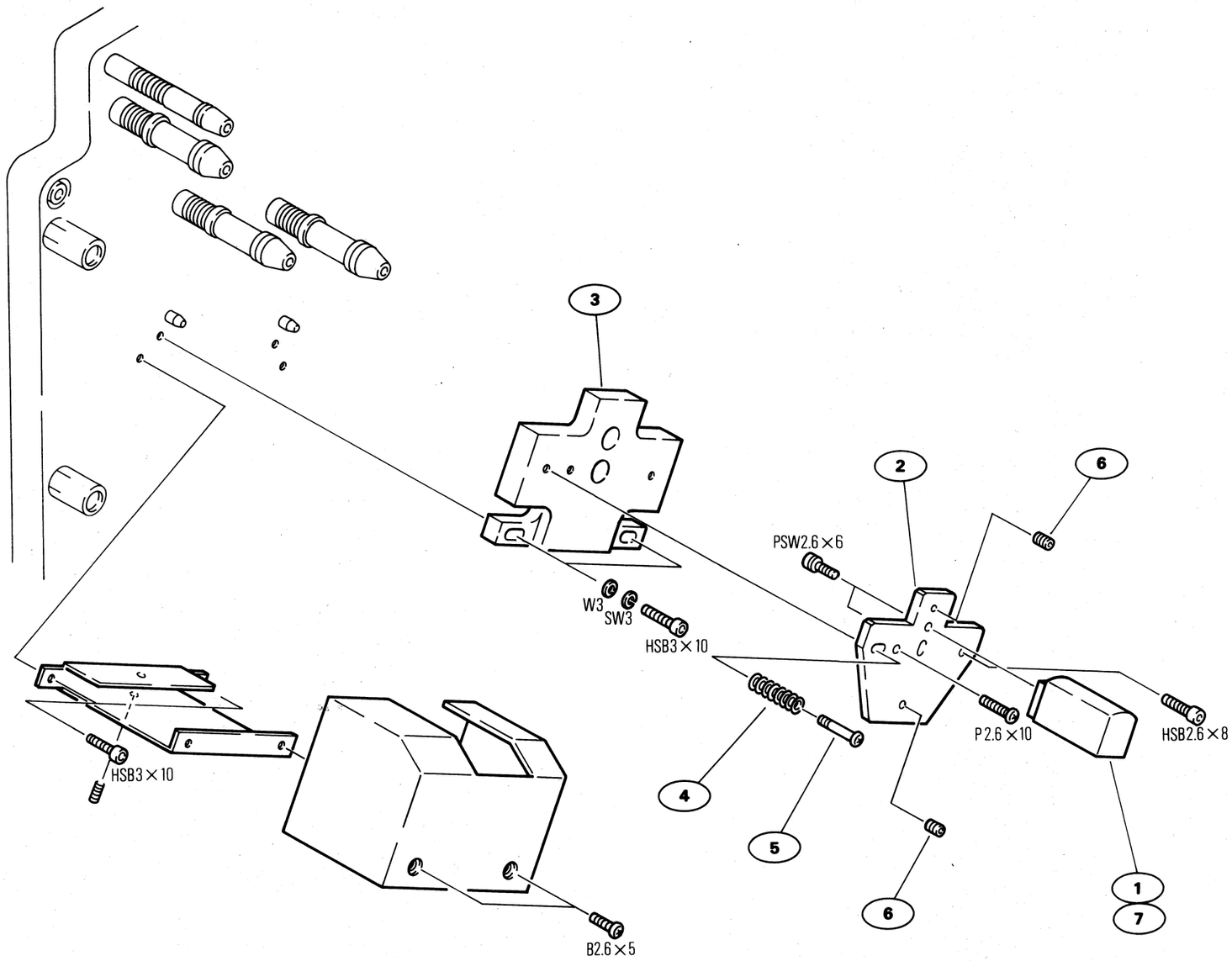
---

ACC HEAD BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8603-115-B | s | HEAD, ACC (VHS MONAURAL) (MMV810) |
| 2 | 2-985-328-01 | o | BRACKET, HEAD |
| 3 | 2-985-329-01 | o | TABLE, FIXED, HEAD |
| 4 | 3-645-513-00 | s | SPRING, HEAD DECK ADJUSTMENT |
| 5 | 3-659-333-00 | s | SCREW (3x17), STEP |
| 6 | 3-701-508-00 | o | SCREW (M3) |
| 7 | 8-825-771-71 | s | HEAD, ACC (PS298-2104A) (MMV800/802) |

## ACC Head Block

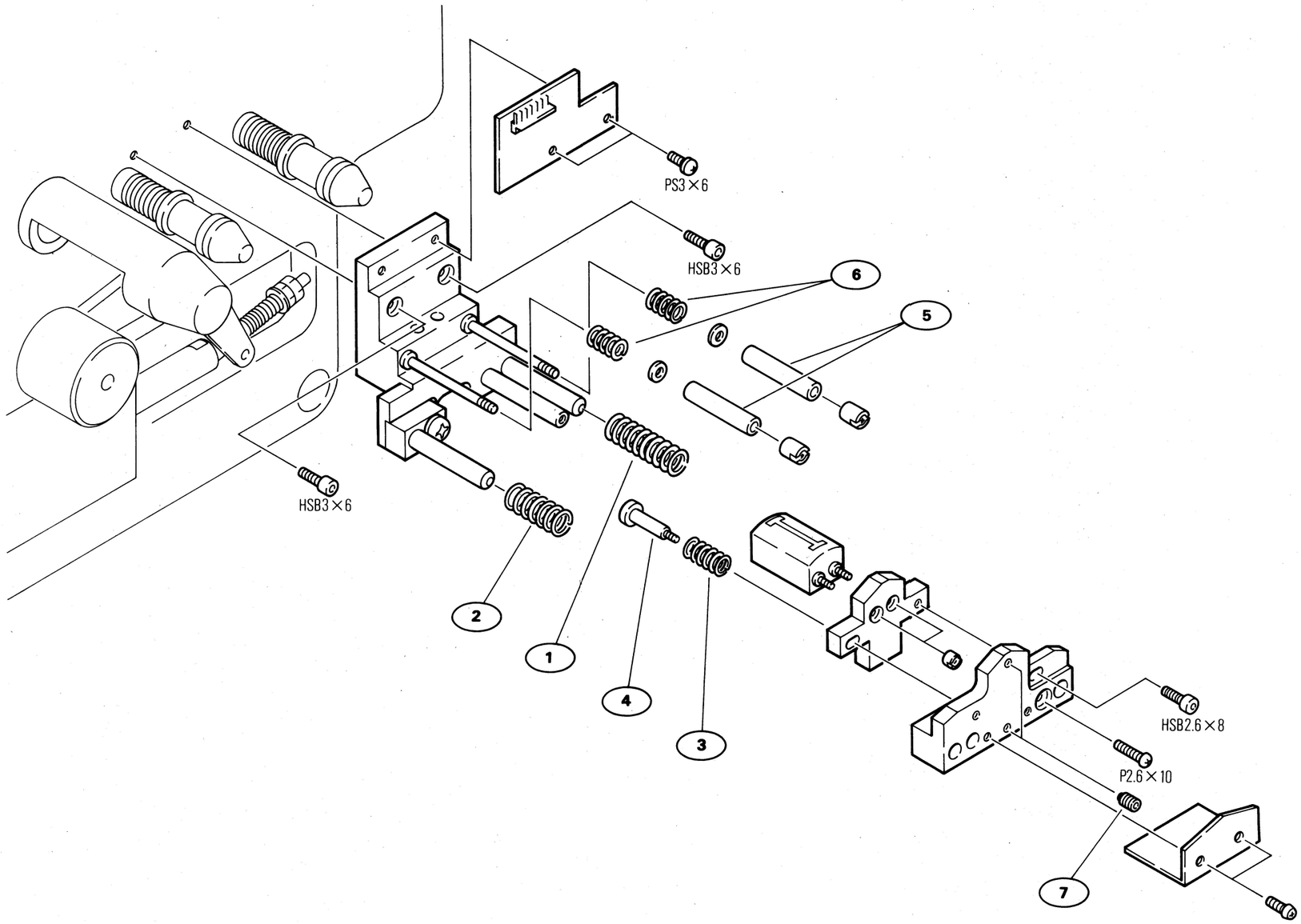





15-31

| MONITOR HEAD BLOCK | MONITOR HEAD BLOCK |
|---|---|

## Monitor Head Block






15-32

---

MONITOR HEAD BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | 2-985-062-01 | o | SPRING, COMPRESSION |
| 2 | 2-985-063-01 | o | SPRING, COMPRESSION |
| 3 | 3-645-513-00 | s | SPRING, HEAD DECK ADJUSTMENT |
| 4 | 3-659-333-00 | s | SCREW (3x17), STEP |
| 5 | 3-669-447-00 | o | FLANGE, GUIDE, 6 NUMBER |
| 6 | 3-669-615-00 | s | SPRING, COMPRESSION |
| 7 | 3-701-508-00 | o | SCREW (M3) |

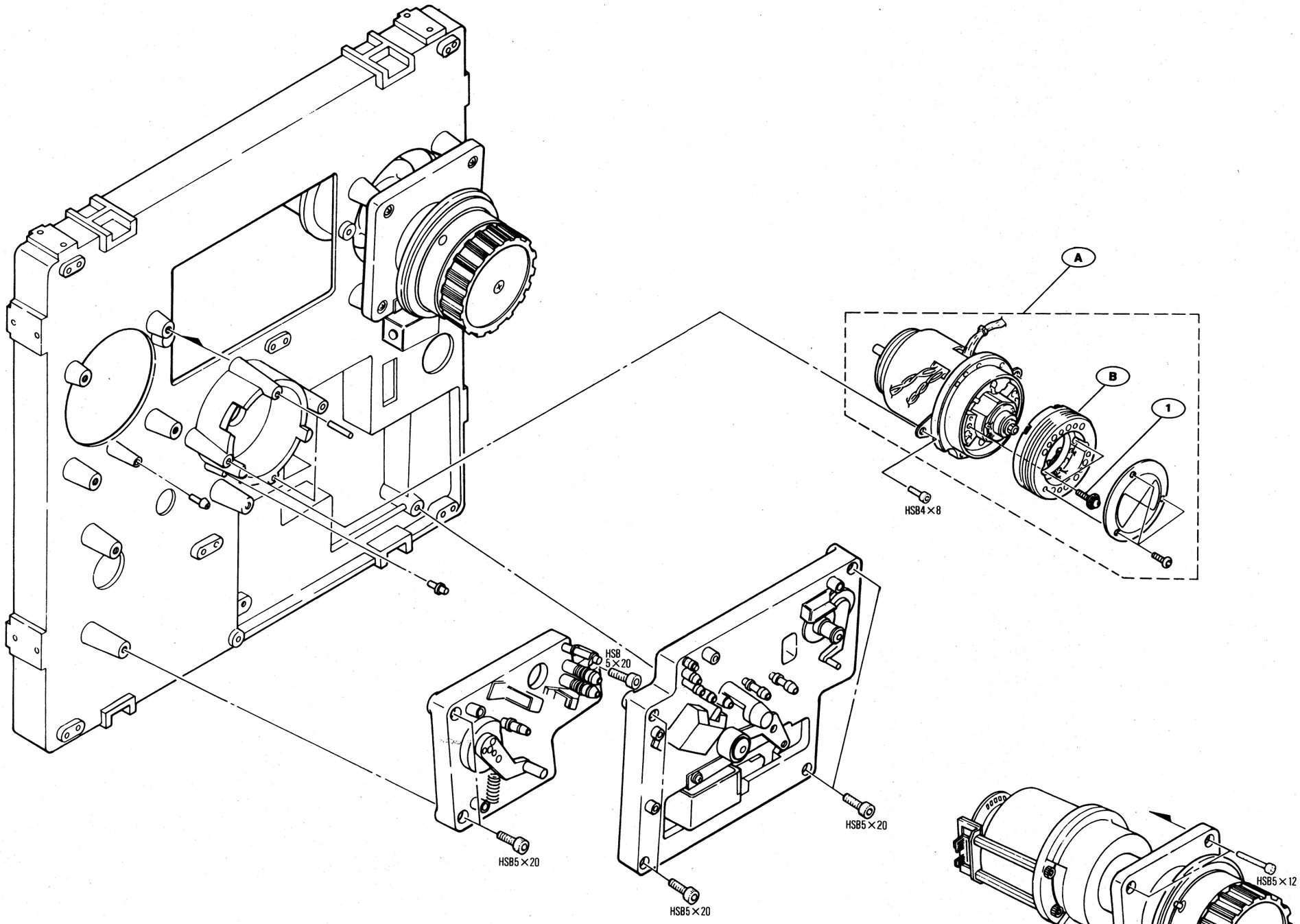
---

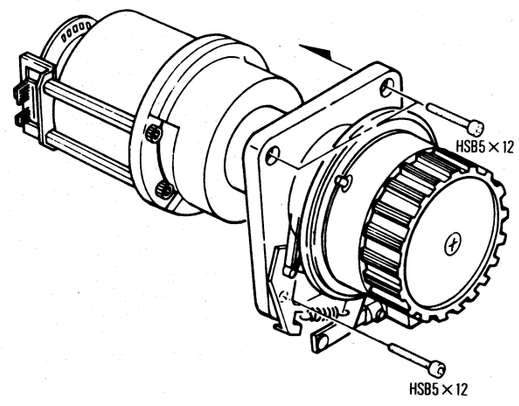
BASE BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| A | A-8603-016-A | s | DRUM ASS'Y (DZH-01A-R) (MMV800) |
| | A-8603-050-A | s | DRUM ASS'Y (DZH-04A-R) (MMV810) |
| | A-8603-046-A | s | DRUM ASS'Y (DZH-03A-R) (MMV802) |
| B | A-8603-017-A | s | UPPER DRUM ASS'Y (DZR-01-R) (MMV800) |
| | A-8603-051-A | s | UPPER DRUM ASS'Y (DZR-04-R) (MMV810) |
| | A-8603-047-A | s | UPPER DRUM ASS'Y (DZR-03-R) (MMV802) |
| 1 | 3-729-126-01 | s | SCREW, SPECIAL, M3x10 |

## Base Block

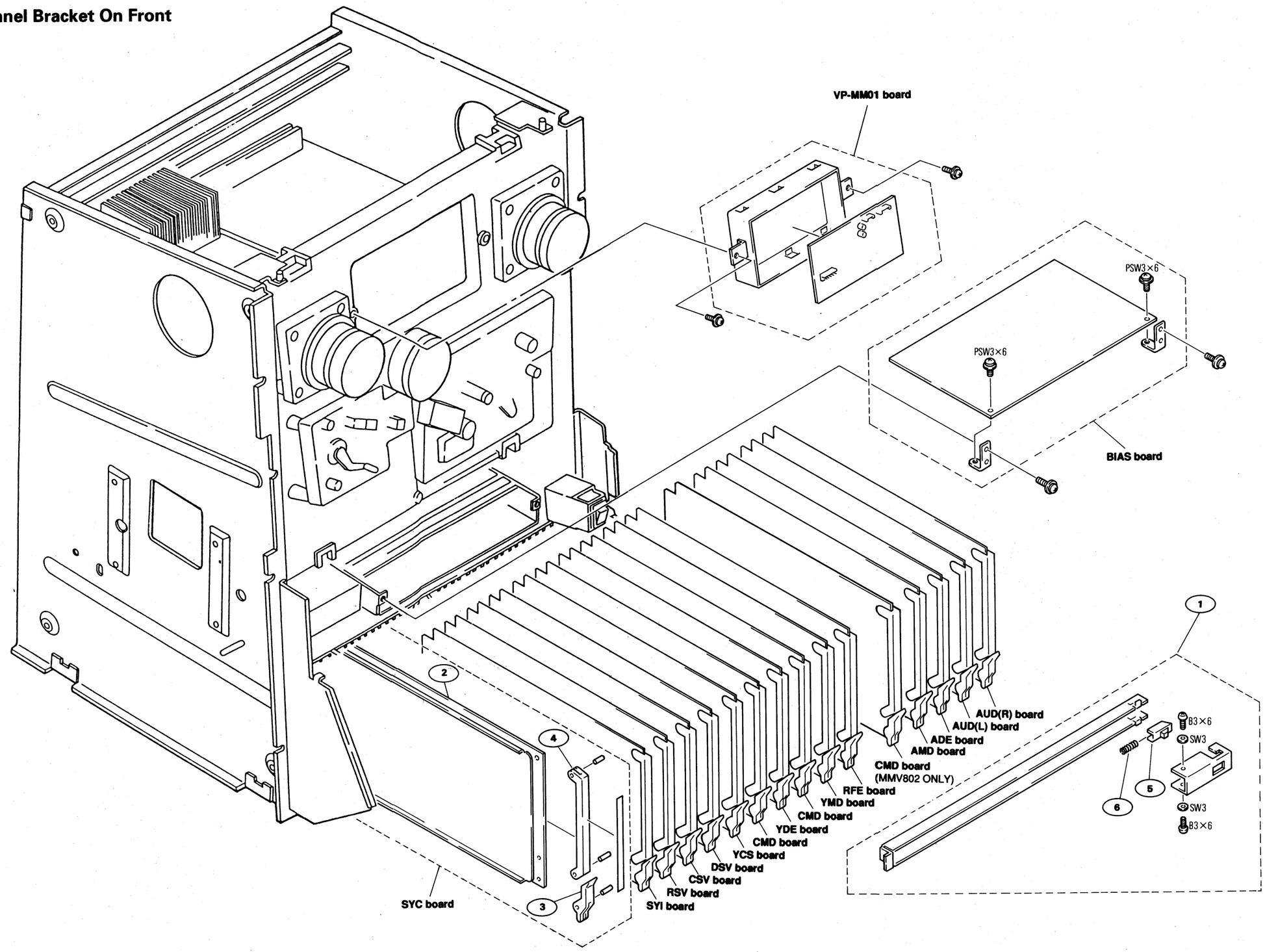





15-35

## PC Board & Panel Bracket On Front



---

PC BOARD & PANEL BRACKET ON FRONT

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-6030-052-A | o | STOPPER ASSY, PC BOARD |
| 2 | X-3673-641-0 | o | PLATE ASSY, SHIELD |
| 3 | 3-673-865-00 | o | LEVER |
| 4 | 3-673-867-11 | o | PLATE, INDICATION, PC BOARD |
| 5 | 3-673-883-00 | o | KNOB, LOCK |
| 6 | 4-864-521-00 | s | SPRING, COMPRESSION |

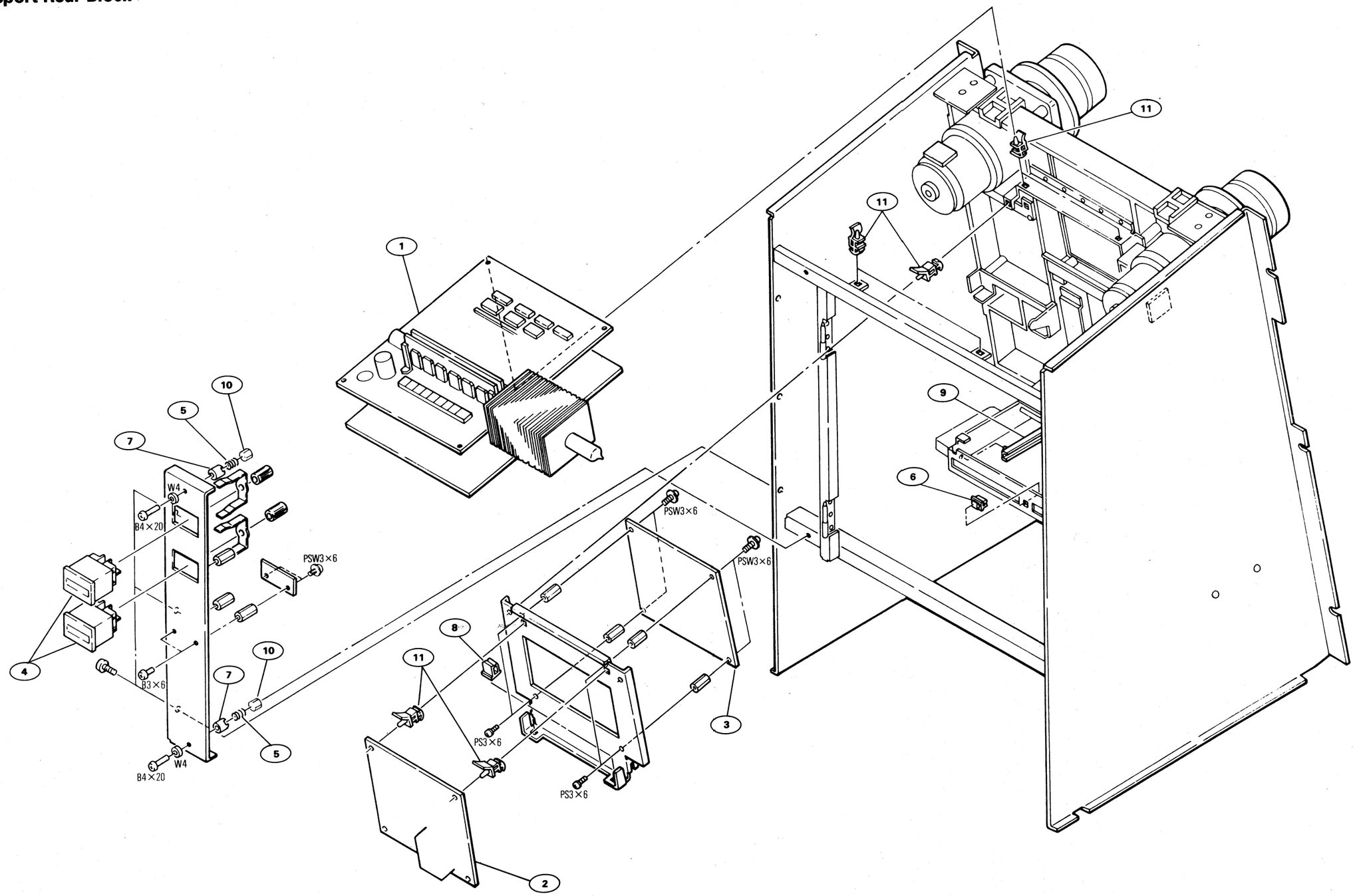
---

TAPE TRANSPORT REAR BLOCK

---

| No. | Part No. | SP | Description |
|---|---|---|---|
| 1 | A-8615-100-B | o | COMPLETE PCB, DRV |
| 2 | A-8616-103-C | o | MOUNTED PCB, APR |
| 3 | A-8616-209-A | o | MOUNTED PCB, RA-MM01 |
| 4 | 1-548-154-11 | s | TIMER |
| 5 | 2-985-194-01 | o | SPRING, COMPRESSION |
| 6 | 3-642-310-00 | o | HOLDER, CIRCUIT BOARD |
| 7 | 3-651-849-00 | o | SPACER, PANEL |
| 8 | 3-659-682-00 | o | HOLDER, PC BOARD |
| 9 | 3-673-676-21 | o | RAIL, PC BOARD GUIDE |
| 10 | 3-680-316-00 | s | NUT (M4), STOPPER |
| 11 | 3-703-141-00 | o | HOLDER, PCB |

## Tape Transport Rear Block






15-39

## CERAMIC CAPACITOR

| Part No. | SP | Description |
|---|---|---|
| 1-161-888-11 | s | CAP, CERAMIC 0.01 50V |
| 1-161-485-00 | s | CAP, CERAMIC 0.1 50V |

## MYLAR CAPACITOR

| Part No. | SP | Description |
|---|---|---|
| 1-130-471-00 | s | CAP, MYLAR 1000pF 5% 50V |
| 1-130-472-00 | s | CAP, MYLAR 1200pF 5% 50V |
| 1-130-473-00 | s | CAP, MYLAR 1500pF 5% 50V |
| 1-130-474-00 | s | CAP, MYLAR 1800pF 5% 50V |
| 1-130-475-00 | s | CAP, MYLAR 2200pF 5% 50V |
| 1-130-476-00 | s | CAP, MYLAR 2700pF 5% 50V |
| 1-130-477-00 | s | CAP, MYLAR 3300pF 5% 50V |
| 1-130-478-00 | s | CAP, MYLAR 3900pF 5% 50V |
| 1-130-479-00 | s | CAP, MYLAR 4700pF 5% 50V |
| 1-130-481-00 | s | CAP, MYLAR 6800pF 5% 50V |
| 1-130-480-00 | s | CAP, MYLAR 5600pF 5% 50V |
| 1-130-483-00 | s | CAP, MYLAR 0.01 5% 50V |
| 1-130-484-00 | s | CAP, MYLAR 0.012 5% 50V |
| 1-130-485-00 | s | CAP, MYLAR 0.015 5% 50V |
| 1-130-486-00 | s | CAP, MYLAR 0.018 5% 50V |
| 1-130-487-00 | s | CAP, MYLAR 0.022 5% 50V |
| 1-130-488-00 | s | CAP, MYLAR 0.027 5% 50V |
| 1-130-489-00 | s | CAP, MYLAR 0.033 5% 50V |
| 1-130-490-11 | s | CAP, MYLAR 0.039 5% 50V |
| 1-130-491-00 | s | CAP, MYLAR 0.047 5% 50V |
| 1-130-493-00 | s | CAP, MYLAR 0.068 5% 50V |
| 1-130-495-00 | s | CAP, MYLAR 0.1 5% 50V |

## ELECTROLYTIC CAPACITOR

| Part No. | SP | Description |
|---|---|---|
| 1-124-902-00 | s | CAP, ELECT 0.47 20% 50V |
| 1-124-903-11 | s | CAP, ELECT 1.0 20% 50V |
| 1-123-382-00 | s | CAP, ELECT 3.3 20% 100V |
| 1-124-915-11 | s | CAP, ELECT 10 20% 63V |
| 1-124-916-11 | s | CAP, ELECT 22 20% 63V |
| 1-124-910-11 | s | CAP, ELECT 47 20% 50V |
| 1-126-101-11 | s | CAP, ELECT 100 20% 16V |
| 1-124-122-11 | s | CAP, ELECT 100 20% 50V |
| 1-124-120-11 | s | CAP, ELECT 220 20% 25V |
| 1-124-472-11 | s | CAP, ELECT 470 20% 10V |

## CARBON RESISTOR

| Part No. | SP | Description |
|---|---|---|
| 1-249-447-11 | s | RES, CARBON 1.0 5% 1/4W |
| 1-249-453-11 | s | RES, CARBON 3.3 5% 1/4W |
| 1-249-457-11 | s | RES, CARBON 6.8 5% 1/4W |
| 1-249-458-11 | s | RES, CARBON 8.2 5% 1/4W |
| 1-247-688-11 | s | RES, CARBON 10 5% 1/4W |
| 1-247-084-00 | s | RES, CARBON 11 5% 1/4W |
| 1-247-090-00 | s | RES, CARBON 20 5% 1/4W |
| 1-247-694-11 | s | RES, CARBON 33 5% 1/4W |
| 1-247-695-11 | s | RES, CARBON 39 5% 1/4W |
| 1-247-696-11 | s | RES, CARBON 47 5% 1/4W |
| 1-247-100-00 | s | RES, CARBON 51 5% 1/4W |
| 1-247-697-11 | s | RES, CARBON 56 5% 1/4W |
| 1-247-698-11 | s | RES, CARBON 68 5% 1/4W |
| 1-247-104-00 | s | RES, CARBON 75 5% 1/4W |
| 1-247-700-11 | s | RES, CARBON 100 5% 1/4W |
| 1-247-701-11 | s | RES, CARBON 120 5% 1/4W |
| 1-247-702-11 | s | RES, CARBON 150 5% 1/4W |
| 1-247-703-11 | s | RES, CARBON 180 5% 1/4W |
| 1-247-704-11 | s | RES, CARBON 220 5% 1/4W |
| 1-247-705-11 | s | RES, CARBON 270 5% 1/4W |
| 1-247-706-11 | s | RES, CARBON 330 5% 1/4W |
| 1-247-707-11 | s | RES, CARBON 390 5% 1/4W |
| 1-247-122-00 | s | RES, CARBON 430 5% 1/4W |
| 1-247-708-11 | s | RES, CARBON 470 5% 1/4W |
| 1-247-709-11 | s | RES, CARBON 510 5% 1/4W |
| 1-247-710-11 | s | RES, CARBON 560 5% 1/4W |
| 1-247-711-11 | s | RES, CARBON 680 5% 1/4W |
| 1-247-128-00 | s | RES, CARBON 750 5% 1/4W |
| 1-247-712-11 | s | RES, CARBON 820 5% 1/4W |
| 1-247-130-00 | s | RES, CARBON 910 5% 1/4W |
| 1-247-713-11 | s | RES, CARBON 1.0k 5% 1/4W |
| 1-247-138-00 | s | RES, CARBON 2.0k 5% 1/4W |
| 1-247-714-11 | s | RES, CARBON 1.2k 5% 1/4W |
| 1-247-715-11 | s | RES, CARBON 1.5k 5% 1/4W |
| 1-247-716-11 | s | RES, CARBON 1.8k 5% 1/4W |
| 1-247-717-11 | s | RES, CARBON 2.2k 5% 1/4W |
| 1-247-140-00 | s | RES, CARBON 2.4k 5% 1/4W |
| 1-247-718-11 | s | RES, CARBON 2.7k 5% 1/4W |
| 1-247-719-11 | s | RES, CARBON 3.3k 5% 1/4W |
| 1-247-720-11 | s | RES, CARBON 3.9k 5% 1/4W |
| 1-247-146-00 | s | RES, CARBON 4.3k 5% 1/4W |
| 1-247-721-11 | s | RES, CARBON 4.7k 5% 1/4W |
| 1-247-148-00 | s | RES, CARBON 5.1k 5% 1/4W |
| 1-247-722-11 | s | RES, CARBON 5.6k 5% 1/4W |
| 1-247-723-11 | s | RES, CARBON 6.8k 5% 1/4W |
| 1-247-152-00 | s | RES, CARBON 7.5k 5% 1/4W |
| 1-247-724-11 | s | RES, CARBON 8.2k 5% 1/4W |
| 1-247-725-11 | s | RES, CARBON 10k 5% 1/4W |
| 1-249-459-11 | s | RES, CARBON 12k 5% 1/4W |
| 1-247-158-00 | s | RES, CARBON 13k 5% 1/4W |
| 1-249-460-11 | s | RES, CARBON 15k 5% 1/4W |
| 1-247-160-00 | s | RES, CARBON 16k 5% 1/4W |
| 1-247-162-00 | s | RES, CARBON 20k 5% 1/4W |
| 1-249-462-11 | s | RES, CARBON 22k 5% 1/4W |
| 1-247-164-00 | s | RES, CARBON 24k 5% 1/4W |
| 1-249-463-11 | s | RES, CARBON 27k 5% 1/4W |
| 1-247-166-00 | s | RES, CARBON 30k 5% 1/4W |
| 1-247-726-11 | s | RES, CARBON 33k 5% 1/4W |
| 1-247-168-00 | s | RES, CARBON 36k 5% 1/4W |
| 1-249-464-11 | s | RES, CARBON 39k 5% 1/4W |

(CARBON RESISTOR)

| Part No. | SP | Description |
|---|---|---|
| 1-249-465-11 | s | RES, CARBON 47k 5% 1/4W |
| 1-249-466-11 | s | RES, CARBON 56k 5% 1/4W |
| 1-249-467-11 | s | RES, CARBON 68k 5% 1/4W |
| 1-249-468-11 | s | RES, CARBON 82k 5% 1/4W |
| 1-249-469-11 | s | RES, CARBON 100k 5% 1/4W |
| 1-247-881-00 | s | RES, CARBON 120k 5% 1/4W |
| 1-246-526-00 | s | RES, CARBON 160k 5% 1/4W |
| 1-246-530-00 | s | RES, CARBON 240k 5% 1/4W |
| 1-247-887-00 | s | RES, CARBON 220k 5% 1/4W |
| 1-246-531-00 | s | RES, CARBON 270k 5% 1/4W |
| 1-246-532-00 | s | RES, CARBON 300k 5% 1/4W |
| 1-247-891-00 | s | RES, CARBON 330k 5% 1/4W |
| 1-246-534-00 | s | RES, CARBON 360k 5% 1/4W |
| 1-247-895-00 | s | RES, CARBON 470k 5% 1/4W |
| 1-246-539-00 | s | RES, CARBON 560k 5% 1/4W |
| 1-246-540-00 | s | RES, CARBON 620k 5% 1/4W |
| 1-246-541-00 | s | RES, CARBON 680k 5% 1/4W |
| 1-246-545-00 | s | RES, CARBON 1.0M 5% 1/4W |

METAL RESISTOR

| Part No. | SP | Description |
|---|---|---|
| 1-215-373-31 | s | RES, METAL 10 1% 1/6W |
| 1-215-375-00 | s | RES, METAL 12 1% 1/6W |
| 1-215-390-00 | s | RES, METAL 51 1% 1/6W |
| 1-215-393-00 | s | RES, METAL 68 1% 1/6W |
| 1-215-394-00 | s | RES, METAL 75 1% 1/6W |
| 1-215-397-00 | s | RES, METAL 100 1% 1/6W |
| 1-215-399-00 | s | RES, METAL 120 1% 1/6W |
| 1-215-404-00 | s | RES, METAL 200 1% 1/6W |
| 1-215-405-00 | s | RES, METAL 220 1% 1/6W |
| 1-215-406-00 | s | RES, METAL 240 1% 1/6W |
| 1-215-407-00 | s | RES, METAL 270 1% 1/6W |
| 1-215-409-00 | s | RES, METAL 330 1% 1/6W |
| 1-215-413-00 | s | RES, METAL 470 1% 1/6W |
| 1-215-416-00 | s | RES, METAL 620 1% 1/6W |
| 1-215-417-00 | s | RES, METAL 680 1% 1/6W |
| 1-215-418-00 | s | RES, METAL 750 1% 1/6W |
| 1-215-419-00 | s | RES, METAL 820 1% 1/6W |
| 1-215-420-00 | s | RES, METAL 910 1% 1/6W |
| 1-215-421-00 | s | RES, METAL 1.0k 1% 1/6W |
| 1-215-425-00 | s | RES, METAL 1.5k 1% 1/6W |
| 1-215-427-00 | s | RES, METAL 1.8k 1% 1/6W |
| 1-215-429-00 | s | RES, METAL 2.2k 1% 1/6W |
| 1-215-431-00 | s | RES, METAL 2.7k 1% 1/6W |
| 1-215-432-00 | s | RES, METAL 3.0k 1% 1/6W |
| 1-215-433-00 | s | RES, METAL 3.3k 1% 1/6W |
| 1-215-434-00 | s | RES, METAL 3.6k 1% 1/6W |
| 1-215-435-00 | s | RES, METAL 3.9k 1% 1/6W |
| 1-215-437-00 | s | RES, METAL 4.7k 1% 1/6W |
| 1-215-438-00 | s | RES, METAL 5.1k 1% 1/6W |
| 1-215-439-00 | s | RES, METAL 5.6k 1% 1/6W |
| 1-215-440-00 | s | RES, METAL 6.2k 1% 1/6W |
| 1-215-441-00 | s | RES, METAL 6.8k 1% 1/6W |
| 1-215-443-00 | s | RES, METAL 8.2k 1% 1/6W |
| 1-215-444-00 | s | RES, METAL 9.1k 1% 1/6W |
| 1-215-445-00 | s | RES, METAL 10k 1% 1/6W |
| 1-215-446-00 | s | RES, METAL 11k 1% 1/6W |
| 1-215-447-00 | s | RES, METAL 12k 1% 1/6W |
| 1-215-449-00 | s | RES, METAL 15k 1% 1/6W |
| 1-215-451-00 | s | RES, METAL 18k 1% 1/6W |
| 1-215-453-00 | s | RES, METAL 22k 1% 1/6W |
| 1-215-454-00 | s | RES, METAL 24k 1% 1/6W |
| 1-215-455-00 | s | RES, METAL 27k 1% 1/6W |
| 1-215-457-00 | s | RES, METAL 33k 1% 1/6W |
| 1-215-461-00 | s | RES, METAL 47k 1% 1/6W |
| 1-215-463-00 | s | RES, METAL 56k 1% 1/6W |
| 1-215-464-00 | s | RES, METAL 62k 1% 1/6W |
| 1-215-466-00 | s | RES, METAL 75k 1% 1/6W |
| 1-215-467-00 | s | RES, METAL 82k 1% 1/6W |
| 1-215-469-00 | s | RES, METAL 100k 1% 1/6W |
| 1-215-473-00 | s | RES, METAL 150k 1% 1/6W |
| 1-215-485-00 | s | RES, METAL 470k 1% 1/6W |
| 1-215-493-00 | s | RES, METAL 1.0M 1% 1/6W |

## MICRO INDUCTOR

| Part No. | SP | Description | | |
|---|---|---|---|---|
| 1-408-401-00 | s | INDUCTOR, MICRO | 2.2 | 5% |
| 1-408-409-00 | s | INDUCTOR, MICRO | 10 | 5% |
| 1-408-411-00 | s | INDUCTOR, MICRO | 15 | 5% |
| 1-408-414-00 | s | INDUCTOR, MICRO | 27 | 5% |
| 1-408-416-00 | s | INDUCTOR, MICRO | 39 | 5% |
| 1-408-419-00 | s | INDUCTOR, MICRO | 68 | 5% |
| 1-408-421-00 | s | INDUCTOR, MICRO | 100 | 5% |
| 1-408-422-00 | s | INDUCTOR, MICRO | 120 | 5% |
| 1-408-423-00 | s | INDUCTOR, MICRO | 150 | 5% |
| 1-408-424-00 | s | INDUCTOR, MICRO | 180 | 5% |
| 1-408-425-00 | s | INDUCTOR, MICRO | 220 | 5% |
| 1-408-427-00 | s | INDUCTOR, MICRO | 330 | 5% |
| 1-408-429-00 | s | INDUCTOR, MICRO | 470 | 5% |
| 1-410-494-11 | s | INDUCTOR, MICRO | 1000 | 5% |

## ADE BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-229-A | o | COMPLETE PCB, ADE:MMV800/810 |
| | A-8615-252-A | o | COMPLETE PCB, ADE:MMV802 |
| BPF1 | 1-235-594-11 | s | FILTER, BAND PASS (SBP-0526):MMV800 |
| BPF1 | 1-236-308-11 | s | FILTER, BAND PASS (SBP-0526):MMV802 |
| BPF2 | 1-235-595-11 | s | FILTER, BAND PASS (SBP-0527):MMV800 |
| BPF2 | 1-236-309-11 | s | FILTER, BAND PASS (SBP-0527):MMV802 |
| C20 | 1-107-083-00 | s | MICA 82PF 5% 50V |
| C22 | 1-107-085-00 | s | MICA 100PF 5% 50V |
| C23 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C24 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C28 | 1-102-112-00 | s | CERAMIC 330PF 10% 50V |
| C29 | 1-109-542-00 | s | MICA 220PF 5% 100V |
| C30 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C33 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C34 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C35 | 1-124-034-51 | s | ELECT 33uF 20% 16V |
| C38 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C39 | 1-107-083-00 | s | MICA 82PF 5% 50V |
| C41 | 1-107-085-00 | s | MICA 100PF 5% 50V |
| C42 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C43 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C47 | 1-102-112-00 | s | CERAMIC 330PF 10% 50V |
| C48 | 1-109-542-00 | s | MICA 220PF 5% 100V |
| C49 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C52 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C53 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C54 | 1-124-034-51 | s | ELECT 33uF 20% 16V |
| C56 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C58 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C60 | 1-102-113-00 | s | CERAMIC 390PF 10% 50V |
| C62 | 1-102-111-00 | s | CERAMIC 270PF 10% 50V |
| C67 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C69 | 1-102-113-00 | s | CERAMIC 390PF 10% 50V |
| C71 | 1-102-111-00 | s | CERAMIC 270PF 10% 50V |
| C75 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C76 | 1-102-112-00 | s | CERAMIC 330PF 10% 50V |
| C79 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C81 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C82 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C83 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C85 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C87 | 1-102-112-00 | s | CERAMIC 330PF 10% 50V |
| C89 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C91 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C92 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C93 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C96 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C97 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C98 | 1-124-034-51 | s | ELECT 33uF 20% 16V |
| C99 | 1-107-159-00 | s | MICA 33PF 5% 500V |
| C102 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C103 | 1-124-034-51 | s | ELECT 33uF 20% 16V |
| C104 | 1-107-159-00 | s | MICA 33PF 5% 500V |
| C110 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C111 | 1-124-034-51 | s | ELECT 33uF 20% 16V |
| C112 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C113 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C114 | 1-124-034-51 | s | ELECT 33uF 20% 16V |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

## (ADE BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C115 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C127 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C131 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C144 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-815-85 | s | DIODE 1S1585 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-815-85 | s | DIODE 1S1585 |
| D6 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-110-13 | s | DIODE RD9.1ES-B2 |
| D8 | 8-719-815-85 | s | DIODE 1S1585 |
| D9 | 8-719-109-85 | s | DIODE RD5.1ES-B2 |
| D10 | 8-719-815-85 | s | DIODE 1S1585 |
| D11 | 8-719-815-85 | s | DIODE 1S1585 |
| D12 | 8-719-815-85 | s | DIODE 1S1585 |
| D13 | 8-719-815-85 | s | DIODE 1S1585 |
| D14 | 8-719-815-85 | s | DIODE 1S1585 |
| D901 | 8-719-912-20 | s | DIODE 1SS120 |
| IC1 | 8-759-000-49 | s | IC MC14066BCP |
| IC2 | 8-759-812-22 | s | IC LA1222 |
| IC3 | 8-759-812-22 | s | IC LA1222 |
| IC4 | 8-759-403-92 | s | IC AN6391NS |
| IC5 | 8-759-403-92 | s | IC AN6391NS |
| IC6 | 8-759-400-88 | s | IC AN6291 |
| IC7 | 8-759-503-91 | s | IC TL082ACP |
| IC8 | 8-759-503-91 | s | IC TL082ACP |
| IC10 | 8-759-503-91 | s | IC TL082ACP |
| IC11 | 8-759-503-91 | s | IC TL082ACP |
| IC12 | 8-759-503-91 | s | IC TL082ACP |
| IC13 | 8-759-503-91 | s | IC TL082ACP |
| IC14 | 8-759-240-11 | s | IC TC4011BP |
| IC911 | 8-759-711-23 | s | IC NJM2234L |
| IC921 | 8-759-711-23 | s | IC NJM2234L |
| L1 | 1-409-339-00 | s | COIL, CHOKE |
| L2 | 1-409-339-00 | s | COIL, CHOKE |
| L12 | 1-412-767-11 | s | INDUCTOR 1 |
| L13 | 1-412-767-11 | s | INDUCTOR 1 |
| L14 | 1-412-767-11 | s | INDUCTOR 1 |
| L15 | 1-412-767-11 | s | INDUCTOR 1 |
| Q1 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q2 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q3 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q4 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q5 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q6 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q7 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q8 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q9 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q10 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q11 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q12 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q13 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q16 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q17 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q18 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q19 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q20 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |

(ADE BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q901 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q902 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q911 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q912 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q921 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q922 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| RV3 | 1-237-522-21 | s | RES, VAR 200K |
| RV4 | 1-237-522-21 | s | RES, VAR 200K |
| RV5 | 1-237-516-21 | s | RES, VAR 2K |
| RV6 | 1-237-518-21 | s | RES, VAR 10K |
| RV7 | 1-237-518-21 | s | RES, VAR 10K |
| RV8 | 1-237-520-21 | s | RES, VAR 50K |
| RV9 | 1-237-514-21 | s | RES, VAR 500 |
| RV10 | 1-237-520-21 | s | RES, VAR 50K |
| RV11 | 1-237-514-21 | s | RES, VAR 500 |
| RV14 | 1-237-520-21 | s | RES, VAR 50K |
| RV911 | 1-241-569-11 | s | RES, VAR, 2K |
| RV912 | 1-241-569-11 | s | RES, VAR, 2K |
| RV921 | 1-241-569-11 | s | RES, VAR, 2K |
| RV922 | 1-241-569-11 | s | RES, VAR, 2K |

---

AMD BOARD

---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-078-C | o | COMPLETE PCB, AMD:MMV800/810 |
| | A-8615-248-A | o | COMPLETE PCB, AMD:MMV802 |
| C54 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C56 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C58 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C62 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C101 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C103 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C105 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C106 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C108 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C109 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C112 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C113 | 1-102-112-00 | s | CERAMIC 330PF 10% 50V |
| C115 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C117 | 1-107-159-00 | s | MICA 33PF 5% 500V |
| C118 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C123 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C124 | 1-107-083-00 | s | MICA 82PF 5% 50V |
| C126 | 1-107-085-00 | s | MICA 100PF 5% 50V |
| C127 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C128 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C130 | 1-107-036-00 | s | MICA 68PF 5% 500V |
| C131 | 1-107-036-00 | s | MICA 68PF 5% 500V |
| C133 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C155 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C157 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C159 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C201 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C203 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C205 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C206 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C208 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C209 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C210 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C212 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C213 | 1-102-112-00 | s | CERAMIC 330PF 10% 50V |
| C215 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C217 | 1-107-159-00 | s | MICA 33PF 5% 500V |
| C218 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C223 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C224 | 1-107-083-00 | s | MICA 82PF 5% 50V |
| C226 | 1-107-085-00 | s | MICA 100PF 5% 50V |
| C227 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C228 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C230 | 1-107-077-00 | s | MICA 47PF 5% 50V |
| C231 | 1-107-077-00 | s | MICA 47PF 5% 50V |
| C233 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C255 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C257 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C259 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C902 | 1-131-343-00 | s | TANTALUM 0.22uF 10% 35V |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-815-85 | s | DIODE 1S1585 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-815-85 | s | DIODE 1S1585 |
| D6 | 8-719-815-85 | s | DIODE 1S1585 |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(AMD BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| D7 | 8-719-109-85 | s | DIODE RD5.1ES-B2 |
| D8 | 8-719-110-13 | s | DIODE RD9.1ES-B2 |
| D9 | 8-719-109-75 | s | DIODE RD4.3ES-B2 |
| D10 | 8-719-815-85 | s | DIODE 1S1585 |
| D201 | 8-719-912-20 | s | DIODE 1SS120 |
| D901 | 8-719-815-85 | s | DIODE 1S1585 |
| D902 | 8-719-815-85 | s | DIODE 1S1585 |
| IC1 | 8-759-400-88 | s | IC AN6291 |
| IC3 | 8-759-000-49 | s | IC MC14066BCP |
| IC4 | 8-759-000-49 | s | IC MC14066BCP |
| IC5 | 8-759-240-01 | s | IC TC4001BP |
| IC101 | 8-759-503-91 | s | IC TL082ACP |
| IC102 | 8-759-503-91 | s | IC TL082ACP |
| IC103 | 8-759-403-92 | s | IC AN6391NS |
| IC201 | 8-759-503-91 | s | IC TL082ACP |
| IC202 | 8-759-503-91 | s | IC TL082ACP |
| IC203 | 8-759-403-92 | s | IC AN6391NS |
| IC901 | 8-759-345-38 | s | IC HD14538BP |
| L1 | 1-409-339-00 | s | COIL, CHOKE |
| Q1 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q2 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q3 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q4 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q5 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q6 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q7 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q8 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q9 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q10 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q11 | 8-729-900-37 | s | TRANSISTOR DTC124EF |
| Q101 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q102 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q103 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q105 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q201 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q202 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q203 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q205 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q901 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| RV1 | 1-237-516-21 | s | RES, VAR 2K |
| RV2 | 1-237-516-21 | s | RES, VAR 2K |
| RV5 | 1-237-516-21 | s | RES, VAR 2K |
| RV101 | 1-237-516-21 | s | RES, VAR 2K |
| RV102 | 1-237-517-21 | s | RES, VAR 5K |
| RV103 | 1-237-515-21 | s | RES, VAR 1K |
| RV104 | 1-237-516-21 | s | RES, VAR 2K |
| RV105 | 1-237-518-21 | s | RES, VAR 10K |
| RV106 | 1-237-518-21 | s | RES, VAR 10K:MMV800/810 |
| RV106 | 1-237-517-21 | s | RES, VAR 5K:MMV802 |
| RV201 | 1-237-516-21 | s | RES, VAR 2K |
| RV202 | 1-237-517-21 | s | RES, VAR 5K |
| RV203 | 1-237-515-21 | s | RES, VAR 1K |
| RV204 | 1-237-516-21 | s | RES, VAR 2K |
| RV205 | 1-237-518-21 | s | RES, VAR 10K |
| RV206 | 1-237-518-21 | s | RES, VAR 10K:MMV800/810 |
| RV206 | 1-237-517-21 | s | RES, VAR 5K:MMV802 |
| RV901 | 1-237-521-21 | s | RES, VAR 100K |

(AMD BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| RV902 | 1-237-518-21 | s | RES, VAR 10K |
| RV903 | 1-237-514-21 | s | RES, VAR 500 |
| S1 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S2 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S3 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S901 | 1-553-441-00 | s | SWITCH, TOGGLE |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

## APR BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-103-C | o | MOUNTED PCB, APR |
| C1 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C4 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C6 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C9 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C11 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C13 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C25 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C27 | 1-104-665-11 | s | ELECT 100uF 20% 16V:MMB802 |
| C202 | 1-107-210-00 | s | MICA 22PF 5% 500V |
| C210 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C211 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C302 | 1-107-210-00 | s | MICA 22PF 5% 500V |
| C310 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C311 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| CN1 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN2 | 1-560-304-00 | o | CONNECTOR, IL 8P, MALE |
| CN3 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D201 | 8-719-815-85 | s | DIODE 1S1585:MMV800/810 |
| D202 | 8-719-815-85 | s | DIODE 1S1585:MMV800/810 |
| D301 | 8-719-815-85 | s | DIODE 1S1585:MMV800/810 |
| D302 | 8-719-815-85 | s | DIODE 1S1585:MMV800/810 |
| IC1 | 8-751-340-10 | s | IC CX134A |
| IC2 | 8-759-240-11 | s | IC TC4011BP |
| L1 | 1-412-769-11 | s | INDUCTOR 6.8 |
| L2 | 1-412-769-11 | s | INDUCTOR 6.8 |
| Q1 | 8-729-800-43 | s | TRANSISTOR 2SK152-3 |
| Q2 | 8-729-800-43 | s | TRANSISTOR 2SK152-3 |
| Q3 | 8-729-800-43 | s | TRANSISTOR 2SK152-3 |
| Q4 | 8-729-800-43 | s | TRANSISTOR 2SK152-3 |
| Q5 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q201 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q202 | 8-729-125-20 | s | TRANSISTOR 2SC1252 |
| Q203 | 8-729-206-81 | s | TRANSISTOR 2SA968B-0 |
| Q204 | 8-729-203-81 | s | TRANSISTOR 2SC2238B-0 |
| Q204 | 8-729-203-81 | s | TRANSISTOR 2SC2238B-0 |
| Q301 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q302 | 8-729-125-20 | s | TRANSISTOR 2SC1252 |
| Q303 | 8-729-206-81 | s | TRANSISTOR 2SA968B-0 |
| RV1 | 1-228-457-00 | s | RES, VAR 2K |
| RY1 | 1-515-602-11 | s | RELAY, MAGNET |
| RY2 | 1-515-602-11 | s | RELAY, MAGNET |
| T1 | 1-427-455-00 | s | TRANSFORMER, I/O |
| T2 | 1-427-455-00 | s | TRANSFORMER, I/O |

## AUD(L)BOARD:MMV800/800-A/802/802-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-081-C | o | COMPLETE PCB, AUD(L):MMV800 |
| | A-8615-258-C | o | COMPLETE PCB, AUD(L):MMV802 |
| C9 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C10 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C12 | 1-131-365-00 | s | TANTALUM 10uF 10% 20V |
| C13 | 1-131-365-00 | s | TANTALUM 10uF 10% 20V |
| C15 | 1-131-365-00 | s | TANTALUM 10uF 10% 20V |
| C16 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C17 | 1-131-345-00 | s | TANTALUM 0.47uF 10% 35V |
| C18 | 1-131-345-00 | s | TANTALUM 0.47uF 10% 35V |
| C25 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C26 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C32 | 1-103-499-11 | s | MYLAR 0.22uF 5% 16V:MMV802 |
| C47 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C48 | 1-107-085-00 | s | MICA 100PF 5% 50V |
| C50 | 1-107-085-00 | s | MICA 100PF 5% 50V |
| C51 | 1-107-202-00 | s | MICA 10PF 5% 500V |
| C54 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C55 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C57 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C61 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C62 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C67 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C68 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C81 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C82 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C87 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C203 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C206 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C209 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C212 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C215 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C303 | 1-128-238-11 | s | ELECT 10uF 20% 35V |
| C304 | 1-128-238-11 | s | ELECT 10uF 20% 35V |
| C601 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C603 | 1-131-587-11 | s | TANTALUM 0.68uF 5% 35V |
| C605 | 1-131-343-00 | s | TANTALUM 0.22uF 10% 35V |
| C613 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C614 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-815-85 | s | DIODE 1S1585 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-815-85 | s | DIODE 1S1585 |
| D8 | 8-719-815-85 | s | DIODE 1S1585 |
| D9 | 8-719-815-85 | s | DIODE 1S1585 |
| D10 | 8-719-200-02 | s | DIODE 10E2 |
| D11 | 8-719-815-85 | s | DIODE 1S1585 |
| D12 | 8-719-110-08 | s | DIODE RD8.2ES-B2 |
| D13 | 8-719-110-08 | s | DIODE RD8.2ES-B2 |
| D14 | 8-719-815-85 | s | DIODE 1S1585 |
| IC1 | 8-759-145-58 | s | IC UPC4558C |
| IC2 | 8-759-145-58 | s | IC UPC4558C |
| IC3 | 8-759-145-58 | s | IC UPC4558C |
| IC4 | 8-759-145-58 | s | IC UPC4558C |
| IC5 | 8-759-145-58 | s | IC UPC4558C |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(AUD(L)BOARD:MMV800/800-A/802/802-A )

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC6 | 8-759-145-58 | s | IC UPC4558C |
| IC7 | 8-759-140-53 | s | IC UPD4053BC |
| IC8 | 8-759-140-53 | s | IC UPD4053BC |
| IC9 | 8-759-240-11 | s | IC TC4011BP |
| IC10 | 8-759-240-11 | s | IC TC4011BP |
| IC301 | 8-759-145-58 | s | IC UPC4558C |
| IC601 | 8-759-630-99 | s | IC M5226FP |
| L1 | 1-412-767-11 | s | INDUCTOR 1 |
| L2 | 1-409-339-00 | s | COIL, CHOKE |
| L4 | 1-409-339-00 | s | COIL, CHOKE |
| L5 | 1-409-339-00 | s | COIL, CHOKE |
| L301 | 1-412-814-11 | s | INDUCTOR 33 |
| L302 | 1-412-814-11 | s | INDUCTOR 33 |
| LPF1 | 1-231-726-00 | s | FILTER, LOWPASS |
| LPF2 | 1-231-726-00 | s | FILTER, LOWPASS |
| LV2 | 1-414-045-11 | s | INDUCTOR, VAR |
| Q1 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q2 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q3 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q4 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q5 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q6 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q7 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q8 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q9 | 8-729-334-58 | s | TRANSISTOR 2SC1345 |
| Q10 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q11 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q12 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q13 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q14 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| R14 | 1-210-821-00 | s | CARBON 2.2M 5% 1/4W |
| R50 | 1-249-461-11 | s | CARBON 18K 5% 1/4W:MMV802 |
| R207 | 1-210-829-41 | s | CARBON 5.1M 5% 1/4W |
| R304 | 1-249-461-11 | s | CARBON 18K 5% 1/4W:MMV802 |
| R305 | 1-247-883-00 | s | CARBON 150K 5% 1/4W:MMV802 |
| R306 | 1-247-170-00 | s | CARBON 43K 5% 1/4W:MMV802 |
| RV1 | 1-237-520-21 | s | RES, VAR 50K |
| RV2 | 1-230-677-11 | s | RES, VAR 100K |
| RV4 | 1-237-516-21 | s | RES, VAR 2K |
| RV5 | 1-237-517-21 | s | RES, VAR 5K |
| RV6 | 1-241-570-11 | s | RES, VAR, 10K |
| RV8 | 1-241-570-11 | s | RES, VAR, 10K |
| RV9 | 1-237-516-21 | s | RES, VAR 2K |
| RV10 | 1-237-521-21 | s | RES, VAR 100K |
| RV11 | 1-237-521-21 | s | RES, VAR 100K |
| RV12 | 1-241-570-11 | s | RES, VAR, 10K |
| RV14 | 1-223-297-11 | s | RES, VAR 25K |
| RV15 | 1-223-297-11 | s | RES, VAR 25K |
| RV302 | 1-237-518-21 | s | RES, VAR 10K |
| RV601 | 1-228-462-00 | s | RES, VAR 100K |
| RV602 | 1-228-462-00 | s | RES, VAR 100K |
| RV603 | 1-228-462-00 | s | RES, VAR 100K |
| RV604 | 1-228-462-00 | s | RES, VAR 100K |
| RV605 | 1-228-462-00 | s | RES, VAR 100K |
| RY1 | 1-515-309-21 | s | RELAY |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

(AUD(L)BOARD:MMV800/800-A/802/802-A )

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| S601 | 1-570-373-12 | s | SWITCH, SLIDE |
| SW1 | 1-554-329-00 | s | SWITCH, TOGGLE |
| SW2 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW3 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW4 | 1-553-441-00 | s | SWITCH, TOGGLE |

AUD(R)BOARD:MMV800/800-A/802/802-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-080-C | o | COMPLETE PCB, AUD(R):MMV800 |
| | A-8615-257-A | o | COMPLETE PCB, AUD(R):MMV802 |
| C9 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C10 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C12 | 1-131-365-00 | s | TANTALUM 10uF 10% 20V |
| C15 | 1-131-365-00 | s | TANTALUM 10uF 10% 20V |
| C16 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C17 | 1-131-345-00 | s | TANTALUM 0.47uF 10% 35V |
| C18 | 1-131-345-00 | s | TANTALUM 0.47uF 10% 35V |
| C25 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C26 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C32 | 1-103-499-11 | s | MYLAR 0.22uF 5% 16V:MMV802 |
| C47 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C48 | 1-107-085-00 | s | MICA 100PF 5% 50V |
| C50 | 1-107-085-00 | s | MICA 100PF 5% 50V |
| C51 | 1-107-202-00 | s | MICA 10PF 5% 500V |
| C54 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C55 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C57 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C61 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C62 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C67 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C68 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C81 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C82 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C87 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C203 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C206 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C209 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C212 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C215 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C303 | 1-128-238-11 | s | ELECT 10uF 20% 35V |
| C304 | 1-128-238-11 | s | ELECT 10uF 20% 35V |
| C601 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C603 | 1-131-587-11 | s | TANTALUM 0.68uF 5% 35V |
| C605 | 1-131-343-00 | s | TANTALUM 0.22uF 10% 35V |
| C613 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C614 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-815-85 | s | DIODE 1S1585 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-815-85 | s | DIODE 1S1585 |
| D8 | 8-719-815-85 | s | DIODE 1S1585 |
| D9 | 8-719-815-85 | s | DIODE 1S1585 |
| D10 | 8-719-200-02 | s | DIODE 10E2 |
| D11 | 8-719-815-85 | s | DIODE 1S1585 |
| D12 | 8-719-110-08 | s | DIODE RD8.2ES-B2 |
| D13 | 8-719-110-08 | s | DIODE RD8.2ES-B2 |
| D14 | 8-719-815-85 | s | DIODE 1S1585 |
| IC1 | 8-759-145-58 | s | IC UPC4558C |
| IC2 | 8-759-145-58 | s | IC UPC4558C |
| IC3 | 8-759-145-58 | s | IC UPC4558C |
| IC4 | 8-759-145-58 | s | IC UPC4558C |
| IC5 | 8-759-145-58 | s | IC UPC4558C |
| IC6 | 8-759-145-58 | s | IC UPC4558C |
| IC7 | 8-759-140-53 | s | IC UPD4053BC |

(AUD(R)BOARD:MMV800/800-A/802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC8 | 8-759-140-53 | s | IC UPD4053BC |
| IC9 | 8-759-240-11 | s | IC TC4011BP |
| IC10 | 8-759-240-11 | s | IC TC4011BP |
| IC301 | 8-759-145-58 | s | IC UPC4558C |
| IC601 | 8-759-630-99 | s | IC M5226FP |
| L1 | 1-412-767-11 | s | INDUCTOR 1 |
| L2 | 1-409-339-00 | s | COIL, CHOKE |
| L4 | 1-409-339-00 | s | COIL, CHOKE |
| L5 | 1-409-339-00 | s | COIL, CHOKE |
| L301 | 1-412-814-11 | s | INDUCTOR 33 |
| L302 | 1-412-814-11 | s | INDUCTOR 33 |
| LPF1 | 1-231-726-00 | s | FILTER, LOWPASS |
| LPF2 | 1-231-726-00 | s | FILTER, LOWPASS |
| LV2 | 1-414-045-11 | s | INDUCTOR, VAR |
| Q1 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q2 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q3 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q4 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q5 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q6 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q7 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q8 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q9 | 8-729-334-58 | s | TRANSISTOR 2SC1345 |
| Q10 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q11 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q12 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q13 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q14 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| R14 | 1-210-821-00 | s | CARBON 2.2M 5% 1/4W |
| R50 | 1-249-461-11 | s | CARBON 18K 5% 1/4W:MMV802 |
| R207 | 1-210-829-41 | s | CARBON 5.1M 5% 1/4W |
| R304 | 1-249-461-11 | s | CARBON 18K 5% 1/4W:MMV802 |
| R305 | 1-247-883-00 | s | CARBON 150K 5% 1/4W:MMV802 |
| R306 | 1-247-170-00 | s | CARBON 43K 5% 1/4W:MMV802 |
| RV1 | 1-237-520-21 | s | RES, VAR 50K |
| RV2 | 1-230-677-11 | s | RES, VAR 100K |
| RV3 | 1-237-521-21 | s | RES, VAR 100K |
| RV4 | 1-237-516-21 | s | RES, VAR 2K |
| RV5 | 1-237-517-21 | s | RES, VAR 5K |
| RV6 | 1-241-570-11 | s | RES, VAR, 10K |
| RV8 | 1-241-570-11 | s | RES, VAR, 10K |
| RV9 | 1-237-516-21 | s | RES, VAR 2K |
| RV10 | 1-237-521-21 | s | RES, VAR 100K |
| RV11 | 1-237-521-21 | s | RES, VAR 100K |
| RV12 | 1-241-570-11 | s | RES, VAR, 10K |
| RV14 | 1-223-297-11 | s | RES, VAR 25K:MMV800 |
| RV15 | 1-223-297-11 | s | RES, VAR 25K:MMV800 |
| RV302 | 1-237-518-21 | s | RES, VAR 10K |
| RV601 | 1-228-462-00 | s | RES, VAR 100K |
| RV602 | 1-228-462-00 | s | RES, VAR 100K |
| RV603 | 1-228-462-00 | s | RES, VAR 100K |
| RV604 | 1-228-462-00 | s | RES, VAR 100K |
| RV605 | 1-228-462-00 | s | RES, VAR 100K |
| RY1 | 1-515-309-21 | s | RELAY |
| S601 | 1-570-373-12 | s | SWITCH, SLIDE |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(AUD(R)BOARD:MMV800/800-A/802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| SW1 | 1-554-329-00 | s | SWITCH, TOGGLE |
| SW2 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW3 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW4 | 1-553-441-00 | s | SWITCH, TOGGLE |

AUD BOARD:MMV810/810-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-245-A | o | COMPLETE PCB, AUD:MMV810 |
| C12 | 1-131-365-00 | s | TANTALUM 10uF 10% 20V |
| C13 | 1-131-365-00 | s | TANTALUM 10uF 10% 20V |
| C15 | 1-131-365-00 | s | TANTALUM 10uF 10% 20V |
| C16 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C17 | 1-131-345-00 | s | TANTALUM 0.47uF 10% 35V |
| C18 | 1-131-345-00 | s | TANTALUM 0.47uF 10% 35V |
| C25 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C26 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C50 | 1-107-085-00 | s | MICA 100PF 5% 50V |
| C51 | 1-107-202-00 | s | MICA 10PF 5% 500V |
| C61 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C62 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C67 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C68 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C81 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C82 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C87 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C303 | 1-128-238-11 | s | ELECT 10uF 20% 35V |
| C306 | 1-128-238-11 | s | ELECT 10uF 20% 35V |
| C601 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C603 | 1-131-587-11 | s | TANTALUM 0.68uF 5% 35V |
| C605 | 1-131-343-00 | s | TANTALUM 0.22uF 10% 35V |
| C613 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C614 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-815-85 | s | DIODE 1S1585 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-815-85 | s | DIODE 1S1585 |
| D8 | 8-719-815-85 | s | DIODE 1S1585 |
| D9 | 8-719-815-85 | s | DIODE 1S1585 |
| D10 | 8-719-200-02 | s | DIODE 10E2 |
| D11 | 8-719-815-85 | s | DIODE 1S1585 |
| D12 | 8-719-110-08 | s | DIODE RD8.2ES-B2 |
| D13 | 8-719-110-08 | s | DIODE RD8.2ES-B2 |
| D14 | 8-719-815-85 | s | DIODE 1S1585 |
| IC1 | 8-759-945-58 | s | IC RC4558P |
| IC2 | 8-759-945-58 | s | IC RC4558P |
| IC3 | 8-759-945-58 | s | IC RC4558P |
| IC4 | 8-759-945-58 | s | IC RC4558P |
| IC5 | 8-759-945-58 | s | IC RC4558P |
| IC6 | 8-759-945-58 | s | IC RC4558P |
| IC7 | 8-759-140-53 | s | IC UPD4053BC |
| IC8 | 8-759-140-53 | s | IC UPD4053BC |
| IC9 | 8-759-240-11 | s | IC TC4011BP |
| IC10 | 8-759-240-11 | s | IC TC4011BP |
| IC301 | 8-759-945-58 | s | IC RC4558P |
| IC601 | 8-759-630-99 | s | IC M5226FP |
| L1 | 1-412-767-11 | s | INDUCTOR 1 |
| L2 | 1-409-339-00 | s | COIL, CHOKE |
| L4 | 1-409-339-00 | s | COIL, CHOKE |
| L5 | 1-409-339-00 | s | COIL, CHOKE |
| LPF1 | 1-231-726-00 | s | FILTER, LOWPASS |
| LPF2 | 1-231-726-00 | s | FILTER, LOWPASS |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

(AUD BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| LV1 | 1-412-766-11 | s | INDUCTOR, VARIABLE |
| LV2 | 1-414-045-11 | s | INDUCTOR, VAR |
| Q1 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q2 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q3 | 8-729-281-53 | s | TRANSISTOR 2SC1815-GR |
| Q4 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q5 | 8-729-281-53 | s | TRANSISTOR 2SC1815-GR |
| Q6 | 8-729-281-53 | s | TRANSISTOR 2SC1815-GR |
| Q7 | 8-729-281-53 | s | TRANSISTOR 2SC1815-GR |
| Q8 | 8-729-281-53 | s | TRANSISTOR 2SC1815-GR |
| Q9 | 8-729-334-58 | s | TRANSISTOR 2SC1345 |
| Q10 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q11 | 8-729-281-53 | s | TRANSISTOR 2SC1815-GR |
| Q12 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q13 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q14 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| R14 | 1-210-821-00 | s | CARBON 2.2M 5% 1/4W |
| R207 | 1-210-829-41 | s | CARBON 5.1M 5% 1/4W |
| RV1 | 1-237-520-21 | s | RES, VAR 50K |
| RV2 | 1-230-677-11 | s | RES, VAR 100K |
| RV4 | 1-237-516-21 | s | RES, VAR 2K |
| RV5 | 1-237-517-21 | s | RES, VAR 5K |
| RV6 | 1-241-570-11 | s | RES, VAR, 10K |
| RV7 | 1-237-517-21 | s | RES, VAR 5K |
| RV8 | 1-241-570-11 | s | RES, VAR, 10K |
| RV9 | 1-237-516-21 | s | RES, VAR 2K |
| RV10 | 1-237-521-21 | s | RES, VAR 100K |
| RV11 | 1-237-521-21 | s | RES, VAR 100K |
| RV12 | 1-241-570-11 | s | RES, VAR, 10K |
| RV14 | 1-223-297-11 | s | RES, VAR 25K |
| RV15 | 1-223-297-11 | s | RES, VAR 25K |
| RV601 | 1-228-462-00 | s | RES, VAR 100K |
| RV602 | 1-228-462-00 | s | RES, VAR 100K |
| RV603 | 1-228-462-00 | s | RES, VAR 100K |
| RV604 | 1-228-462-00 | s | RES, VAR 100K |
| RV605 | 1-228-462-00 | s | RES, VAR 100K |
| RY1 | 1-515-309-21 | s | RELAY |
| S601 | 1-570-373-12 | s | SWITCH, SLIDE |
| SW1 | 1-554-329-00 | s | SWITCH, TOGGLE |
| SW2 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW3 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW4 | 1-553-441-00 | s | SWITCH, TOGGLE |

---

BIAS BOARD

---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-084-B | o | COMPLETE PCB, BIAS |
| C3 | 1-107-077-00 | s | MICA 47PF 5% 50V |
| C4 | 1-107-077-00 | s | MICA 47PF 5% 50V |
| C105 | 1-109-633-00 | s | MICA 470PF 2% 500V |
| C106 | 1-109-556-00 | s | MICA 620PF 5% 100V |
| C114 | 1-110-070-00 | s | MYLAR 0.1uF 10% 100V |
| C115 | 1-104-665-11 | s | ELECT 100uF 20% 16V:MMV800/810 |
| C116 | 1-104-665-11 | s | ELECT 100uF 20% 16V:MMV800/810 |
| C118 | 1-106-228-00 | s | MYLAR 0.22uF 10% 100V |
| C206 | 1-109-639-00 | s | MICA 0.0015uF 5% 500V |
| C207 | 1-123-306-00 | s | ELECT 47uF 20% 10V |
| C208 | 1-104-665-11 | s | ELECT 100uF 20% 16V:MMV800/810 |
| C209 | 1-104-665-11 | s | ELECT 100uF 20% 16V:MMV800/810 |
| C211 | 1-109-631-00 | s | MICA 330PF 2% 500V |
| C212 | 1-109-630-00 | s | MICA 270PF 2% 500V |
| C305 | 1-109-639-00 | s | MICA 0.0015uF 5% 500V |
| C306 | 1-104-665-11 | s | ELECT 100uF 20% 16V:MMV800/810 |
| C307 | 1-104-665-11 | s | ELECT 100uF 20% 16V:MMV800/810 |
| C308 | 1-109-631-00 | s | MICA 330PF 2% 500V |
| C309 | 1-109-630-00 | s | MICA 270PF 2% 500V |
| C406 | 1-109-639-00 | s | MICA 0.0015uF 5% 500V |
| C407 | 1-123-306-00 | s | ELECT 47uF 20% 10V |
| C408 | 1-104-665-11 | s | ELECT 100uF 20% 16V:MMV800/810 |
| C409 | 1-104-665-11 | s | ELECT 100uF 20% 16V:MMV800/810 |
| C411 | 1-109-631-00 | s | MICA 330PF 2% 500V |
| C412 | 1-109-630-00 | s | MICA 270PF 2% 500V |
| C508 | 1-109-630-00 | s | MICA 270PF 2% 500V |
| C513 | 1-109-638-00 | s | MICA 0.0012uF 5% 500V |
| C514 | 1-104-665-11 | s | ELECT 100uF 20% 16V:MMV800/810 |
| C516 | 1-109-631-00 | s | MICA 330PF 2% 500V |
| C518 | 1-131-351-00 | s | TANTALUM 4.7uF 10% 35V |
| C519 | 1-131-351-00 | s | TANTALUM 4.7uF 10% 35V |
| C520 | 1-131-351-00 | s | TANTALUM 4.7uF 10% 35V |
| C525 | 1-123-306-00 | s | ELECT 47uF 20% 10V |
| C605 | 1-109-642-00 | s | MICA 0.0022uF 5% 500V |
| CN1 | 1-560-754-00 | s | PIN, HEADER, 10P |
| CN2 | 1-560-756-00 | o | CONNECTOR, 20P, MALE |
| CN3 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN4 | 1-560-306-00 | o | CONNECTOR, IL 12P, MALE |
| CN6 | 1-560-259-00 | o | PIN, CONNECTOR, 6P (WITH LOCK) |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D201 | 8-719-200-02 | s | DIODE 10E2 |
| D301 | 8-719-200-02 | s | DIODE 10E2 |
| D501 | 8-719-815-85 | s | DIODE 1S1585 |
| IC1 | 8-759-000-51 | s | IC MC14069UBCP |
| IC3 | 8-759-240-40 | s | IC TC4040BP |
| IC101 | 8-759-900-04 | s | IC SN74LS04N |
| IC102 | 8-759-503-91 | s | IC TL082ACP |
| IC103 | 8-759-503-91 | s | IC TL082ACP |
| IC202 | 8-759-503-91 | s | IC TL082ACP |
| IC301 | 8-759-503-91 | s | IC TL082ACP |
| IC401 | 8-759-900-04 | s | IC SN74LS04N |
| IC402 | 8-759-503-91 | s | IC TL082ACP |
| IC501 | 8-759-240-11 | s | IC TC4011BP |
| IC502 | 8-759-340-46 | s | IC HD14046BP |
| IC503 | 8-759-240-40 | s | IC TC4040BP |
| IC504 | 8-759-503-91 | s | IC TL082ACP |
| IC505 | 8-759-145-57 | s | IC UPC4557C |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(BIAS BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC601 | 8-759-503-91 | s | IC TL082ACP |
| L501 | 1-409-339-00 | s | COIL, CHOKE |
| L502 | 1-409-339-00 | s | COIL, CHOKE |
| L503 | 1-409-339-00 | s | COIL, CHOKE |
| L504 | 1-409-339-00 | s | COIL, CHOKE |
| LV101 | 1-406-716-11 | s | COIL, VAR |
| LV102 | 1-414-043-11 | s | INDUCTOR, VAR |
| LV201 | 1-414-046-11 | s | INDUCTOR, VAR |
| LV202 | 1-414-046-11 | s | INDUCTOR, VAR |
| LV301 | 1-414-046-11 | s | INDUCTOR, VAR |
| LV302 | 1-414-046-11 | s | INDUCTOR, VAR |
| LV401 | 1-414-046-11 | s | INDUCTOR, VAR |
| LV402 | 1-414-046-11 | s | INDUCTOR, VAR |
| LV501 | 1-414-046-11 | s | INDUCTOR, VAR |
| LV502 | 1-414-046-11 | s | INDUCTOR, VAR |
| LV601 | 1-406-716-11 | s | COIL, VAR |
| Q1 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q102 | 8-729-101-68 | s | TRANSISTOR 2SC2654 |
| Q103 | 8-729-101-68 | s | TRANSISTOR 2SC2654 |
| Q104 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q105 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q201 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q202 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q203 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q204 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q301 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q302 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q303 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q304 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q401 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q402 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q403 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q404 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q501 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q502 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q503 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C |
| Q504 | 8-729-385-82 | s | TRANSISTOR 2SB858-C |
| Q505 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q506 | 8-729-140-96 | s | TRANSISTOR 2SD774-4 |
| Q507 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q508 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q509 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q601 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| R112 | 1-214-776-00 | s | METAL 91K 2% 1/4W |
| R115 | 1-215-882-00 | s | METAL 22 5% 2W |
| R411 | 9-910-999-1B | s | CARBON 110 5% 1/2W |
| R412 | 9-910-999-1B | s | CARBON 110 5% 1/2W |
| R510 | 1-215-886-11 | s | METAL 100 5% 2W |
| R521 | 9-910-999-1B | s | CARBON 110 5% 1/2W |
| R522 | 9-910-999-1B | s | CARBON 110 5% 1/2W |
| R606 | 1-214-761-00 | s | METAL 22K 2% 1/4W |
| R607 | 1-214-776-00 | s | METAL 91K 2% 1/4W |
| RV1 | 1-237-518-21 | s | RES, VAR 10K |
| RV2 | 1-237-518-21 | s | RES, VAR 10K |
| RV401 | 1-206-647-00 | s | METAL 200 5% 2W |
| RV501 | 1-237-517-21 | s | RES, VAR 5K |
| RV502 | 1-237-517-21 | s | RES, VAR 5K |

(BIAS BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| RV503 | 1-206-647-00 | s | METAL 200 5% 2W |
| RY201 | 1-515-602-11 | s | RELAY, MAGNET |
| RY301 | 1-515-602-11 | s | RELAY, MAGNET |
| RY501 | 1-515-602-11 | s | RELAY, MAGNET |
| T101 | 1-433-196-00 | s | TRANSFORMER, BIAS |
| T201 | 1-433-196-00 | s | TRANSFORMER, BIAS |
| T301 | 1-433-196-00 | s | TRANSFORMER, BIAS |
| T401 | 1-433-196-00 | s | TRANSFORMER, BIAS |
| T501 | 1-433-196-00 | s | TRANSFORMER, BIAS |
| TH102 | 1-800-202-11 | s | THERMISTOR |
| TH601 | 1-800-202-11 | s | THERMISTOR |
| X1 | 1-567-481-11 | s | OSCILLATOR, CRYSTAL |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

CD-MM01(CDE)BOARD:MMV800/800-A/810/810-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-227-A | o | COMPLETE PCB, CD-MM01:MMV800 |
| | A-8615-238-A | o | COMPLETE PCB, CD-MM01:MMV810 |
| C205 | 1-162-716-11 | s | CERAMIC 180PF 1% 50V |
| C207 | 1-102-527-11 | s | CERAMIC 82PF 5% 50V |
| C208 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C209 | 1-162-720-11 | s | CERAMIC 270PF 1% 50V |
| C212 | 1-162-720-11 | s | CERAMIC 270PF 1% 50V |
| C216 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C218 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C219 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C221 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C224 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C401 | 1-126-177-11 | s | ELECT 100uF 20% 10V |
| C404 | 1-124-257-00 | s | ELECT 2.2uF 20% 50V |
| C408 | 1-162-720-11 | s | CERAMIC 270PF 1% 50V |
| C410 | 1-164-035-11 | s | CERAMIC 47PF 5% 50V |
| C412 | 1-164-027-11 | s | CERAMIC 22PF 5% 50V |
| C416 | 1-124-464-11 | s | ELECT 0.22MF 20% 50V |
| C418 | 1-126-163-11 | s | ELECT 4.7uF 20% 50V |
| C430 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C432 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C509 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C512 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C602 | 1-162-727-11 | s | CERAMIC 510PF 1% 50V |
| C604 | 1-162-727-11 | s | CERAMIC 510PF 1% 50V |
| C605 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C606 | 1-162-720-11 | s | CERAMIC 270PF 1% 50V |
| C607 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C610 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C709 | 1-162-720-11 | s | CERAMIC 270PF 1% 50V |
| C710 | 1-162-720-11 | s | CERAMIC 270PF 1% 50V |
| C712 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C714 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C716 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C801 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C803 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C806 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C808 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C902 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C904 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C907 | 1-162-716-11 | s | CERAMIC 180PF 1% 50V |
| C909 | 1-162-718-11 | s | CERAMIC 220PF 1% 50V |
| C912 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| CV401 | 1-141-227-00 | s | CAP, VAR 20PF |
| D401 | 8-719-912-20 | s | DIODE 1SS120 |
| D402 | 1-807-049-21 | s | DIODE LN35GP |
| D402 | 8-719-912-20 | s | DIODE 1SS120 |
| D403 | 8-719-912-20 | s | DIODE 1SS120 |
| D404 | 8-719-912-20 | s | DIODE 1SS120 |
| D901 | 8-719-912-20 | s | DIODE 1SS120 |
| D902 | 1-807-049-21 | s | DIODE LN35GP |
| DL201 | 1-415-703-11 | s | DELAY LINE |
| DL202 | 1-415-703-11 | s | DELAY LINE |
| DL401 | 1-235-288-00 | s | FILTER, BAND PASS |
| DL402 | 1-415-692-11 | s | DELAY LINE |
| FL901 | 1-424-338-11 | s | FILTER, NOISE |

(CD-MM01(CDE)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| FL902 | 1-402-938-11 | s | FILTER, NOISE |
| FL903 | 1-424-338-11 | s | FILTER, NOISE |
| FL904 | 1-402-938-11 | s | FILTER, NOISE |
| IC201 | 8-759-711-23 | s | IC NJM2234L |
| IC202 | 8-759-711-23 | s | IC NJM2234L |
| IC203 | 8-759-112-07 | s | IC UPC78N08H |
| IC401 | 1-809-901-11 | s | IC HA118125MP |
| IC402 | 8-759-711-23 | s | IC NJM2234L |
| IC403 | 8-759-112-06 | s | IC UPC78N05H |
| IC601 | 8-759-201-47 | s | IC TA7357AP |
| IC602 | 8-759-168-20 | s | IC TA78L09S |
| IC701 | 8-759-105-34 | s | IC UPC78L08J |
| IC901 | 8-759-112-06 | s | IC UPC78N05H |
| IC902 | 8-759-900-04 | s | IC SN74LS04N |
| IC903 | 8-759-901-23 | s | IC SN74LS123N |
| IC904 | 8-759-900-10 | s | IC SN74LS10N |
| L401 | 1-424-109-11 | s | COIL |
| L801 | 1-412-012-11 | s | INDUCTOR 100UH |
| L802 | 1-412-012-11 | s | INDUCTOR 100UH |
| Q201 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q202 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q203 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q204 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q205 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q206 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q207 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q208 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q209 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q402 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q403 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q404 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q405 | 8-729-203-05 | s | TRANSISTOR 2SK30A-GR3 |
| Q406 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q407 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q408 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q409 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q410 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q411 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q412 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q501 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q502 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q503 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q504 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q505 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q506 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q507 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q601 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q602 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q603 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q703 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q704 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q901 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q902 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q903 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q904 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q905 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q906 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q907 | 8-729-900-80 | s | TRANSISTOR DTC114ES |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CD-MM01(CDE)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R201 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R202 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R203 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R204 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R205 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R206 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R207 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R208 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R209 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R210 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R211 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R212 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R213 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R214 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R216 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R217 | 1-249-417-11 | s | CARBON 1K 5% 1/4W:MMV800 |
| R218 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R219 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R220 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R222 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R223 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R224 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R225 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R227 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R228 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R229 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R230 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R231 | 1-249-415-11 | s | CARBON 680 5% 1/4W:MMV800 |
| R232 | 1-247-412-11 | s | CARBON 390 5% 1/4W:MMV800 |
| R232 | 1-247-814-11 | s | CARBON 200 5% 1/4W:MMV810 |
| R233 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R234 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R235 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R236 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R237 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R238 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R239 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R402 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R403 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R404 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R405 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R406 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R407 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R408 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R409 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R410 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R411 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R412 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R413 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R415 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R417 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R418 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R419 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R421 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R422 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R423 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R425 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R426 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |

(CD-MM01(CDE)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R427 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R428 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R429 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R501 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R502 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R503 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R504 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R505 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R506 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R507 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R508 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R509 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R510 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R511 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R512 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R513 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R514 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R515 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R516 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R517 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R518 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R519 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R520 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R521 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R522 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R523 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R524 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R525 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R601 | 1-249-430-11 | s | CARBON 12K 5% 1/4W |
| R603 | 1-247-882-11 | s | CARBON 130K 5% 1/4W |
| R605 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R606 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R607 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R608 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R707 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R709 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R710 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R711 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R712 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R713 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R714 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R715 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R716 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R902 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R903 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R905 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R906 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R907 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R908 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R909 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R910 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R911 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R912 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R913 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R914 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R915 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R916 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| RV201 | 1-241-569-11 | s | RES, VAR, 2K |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CD-MM01(CDE)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| RV202 | 1-241-569-11 | s | RES, VAR, 2K |
| RV203 | 1-237-515-21 | s | RES, VAR 1K |
| RV204 | 1-237-515-21 | s | RES, VAR 1K |
| RV501 | 1-237-514-21 | s | RES, VAR 500 |
| X401 | 1-577-166-11 | s | OSCILLATOR, CRYSTAL |

CD-MM02(CDE)BOARD:MMV802/802-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-255-A | o | COMPLETE PCB, CD-MM02:MMV802 |
| C205 | 1-162-716-11 | s | CERAMIC 180PF 1% 50V |
| C207 | 1-102-527-11 | s | CERAMIC 82PF 5% 50V |
| C208 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C209 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C212 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C216 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C218 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C219 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C221 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C224 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C225 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C308 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C312 | 1-102-111-21 | s | CERAMIC 270PF 10% 50V |
| C315 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C316 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C320 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C321 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C322 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C323 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C324 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C325 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C326 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C327 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C328 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C330 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C331 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C332 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C333 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C335 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C337 | 1-164-097-51 | s | CERAMIC 0.022uF 50V |
| C338 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C340 | 1-102-525-61 | s | CERAMIC 68PF 5% 50V |
| C342 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C344 | 1-164-097-51 | s | CERAMIC 0.022uF 50V |
| C345 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C346 | 1-102-525-61 | s | CERAMIC 68PF 5% 50V |
| C347 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C348 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C350 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C351 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C352 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C353 | 1-136-162-00 | s | FILM 0.056uF 5% 50V |
| C354 | 1-126-933-51 | s | ELECT 100uF 20% 50V |
| C355 | 1-124-034-51 | s | ELECT 33uF 20% 50V |
| C357 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C358 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C360 | 1-162-889-21 | s | CERAMIC 680PF 5% 50V |
| C363 | 1-162-889-21 | s | CERAMIC 680PF 5% 50V |
| C366 | 1-162-889-21 | s | CERAMIC 680PF 5% 50V |
| C372 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C374 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C376 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C378 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C379 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C380 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C381 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C401 | 1-124-465-00 | s | ELECT 0.47uF 20% 50V |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CD-MM02(CDE)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C404 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C408 | 1-124-252-00 | s | ELECT 0.33uF 20% 50V |
| C409 | 1-126-162-11 | s | ELECT 3.3uF 20% 35V |
| C410 | 1-126-177-11 | s | ELECT 100uF 20% 6.3V |
| C414 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C417 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C418 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C423 | 1-126-163-11 | s | ELECT 4.7uF 20% 50V |
| C424 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C425 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C426 | 1-162-724-11 | s | CERAMIC 390PF 5% 50V |
| C427 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C434 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C437 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C438 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C509 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C512 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C602 | 1-162-727-11 | s | CERAMIC 510PF 1% 50V |
| C604 | 1-162-727-11 | s | CERAMIC 510PF 1% 50V |
| C605 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C606 | 1-162-720-11 | s | CERAMIC 270PF 1% 50V |
| C607 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C610 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C709 | 1-164-031-51 | s | CERAMIC 33PF 5% 50V |
| C710 | 1-164-027-51 | s | CERAMIC 22PF 5% 50V |
| C712 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C714 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C716 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C718 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C719 | 1-162-718-11 | s | CERAMIC 220PF 5% 50V |
| C720 | 1-102-816-00 | s | CERAMIC 120PF 5% 50V |
| C721 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C722 | 1-162-720-11 | s | CERAMIC 270PF 5% 50V |
| C723 | 1-102-816-00 | s | CERAMIC 120PF 5% 50V |
| C801 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C803 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C806 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C808 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C902 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C904 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C912 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| CV401 | 1-141-227-00 | s | CAP, VAR 20PF |
| D310 | 8-719-104-10 | s | DIODE 1SS99 |
| D311 | 8-719-104-10 | s | DIODE 1SS99 |
| D312 | 1-807-049-21 | s | DIODE LN35GP |
| D401 | 8-719-912-20 | s | DIODE 1SS120 |
| D402 | 1-807-049-21 | s | DIODE LN35GP |
| D402 | 8-719-912-20 | s | DIODE 1SS120 |
| D901 | 8-719-912-20 | s | DIODE 1SS120 |
| D902 | 1-807-049-21 | s | DIODE LN35GP |
| D903 | 8-719-912-20 | s | DIODE 1SS120 |
| D904 | 8-719-912-20 | s | DIODE 1SS120 |
| DL201 | 1-415-703-11 | s | DELAY LINE |
| DL202 | 1-415-703-11 | s | DELAY LINE |
| DL401 | 1-415-728-11 | s | DELAY LINE, 2H(ULTRASONIC) |
| FL310 | 1-236-568-11 | s | FILTER, BAND PASS |
| FL311 | 1-236-566-11 | s | FILTER, BAND PASS |

(CD-MM02(CDE)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| FL312 | 1-236-617-11 | s | COIL, BELL FILTER |
| FL313 | 1-236-568-11 | s | FILTER, BAND PASS |
| FL901 | 1-424-338-11 | s | FILTER, NOISE |
| FL902 | 1-402-938-11 | s | FILTER, NOISE |
| FL903 | 1-424-338-11 | s | FILTER, NOISE |
| FL904 | 1-402-938-11 | s | FILTER, NOISE |
| IC201 | 8-759-711-23 | s | IC NJM2234L |
| IC202 | 8-759-711-23 | s | IC NJM2234L |
| IC203 | 8-759-112-07 | s | IC UPC78N08H |
| IC301 | 8-759-711-23 | s | IC NJM2234L |
| IC302 | 8-759-711-23 | s | IC NJM2234L |
| IC310 | 1-809-314-11 | s | IC BA7107S |
| IC311 | 8-759-996-63 | s | IC BA7025L |
| IC312 | 8-759-057-39 | s | IC MC14577BP |
| IC313 | 8-759-057-42 | s | IC MC14576BP |
| IC314 | 8-759-239-47 | s | IC TC74HC123AP |
| IC315 | 8-759-239-47 | s | IC TC74HC123AP |
| IC316 | 8-759-239-47 | s | IC TC74HC123AP |
| IC317 | 8-759-701-95 | s | IC NJM78M09FA |
| IC318 | 8-759-701-75 | s | IC NJM7805FA |
| IC401 | 1-809-903-11 | s | IC NJM2245L |
| IC402 | 1-810-347-11 | s | IC HA118090MA |
| IC403 | 8-759-112-06 | s | IC UPC78N05H |
| IC601 | 8-759-201-47 | s | IC TA7357AP |
| IC602 | 8-759-168-20 | s | IC TA78L09S |
| IC701 | 8-759-105-34 | s | IC UPC78L08J |
| IC901 | 8-759-112-06 | s | IC UPC78N05H |
| IC902 | 8-759-900-04 | s | IC SN74LS04N |
| IC903 | 8-759-901-23 | s | IC SN74LS123N |
| IC904 | 8-759-900-10 | s | IC SN74LS10N |
| L801 | 1-412-012-11 | s | INDUCTOR 100UH |
| L802 | 1-412-012-11 | s | INDUCTOR 100UH |
| Q201 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q202 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q203 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q204 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q205 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q206 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q207 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q208 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q209 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q301 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q302 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q303 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q304 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q305 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q306 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q307 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q308 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q310 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q311 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q312 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q313 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q314 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q401 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q402 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q403 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CD-MM02(CDE)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q404 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q405 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q406 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q407 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q408 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q409 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q501 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q502 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q503 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q504 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q505 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q506 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q507 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q601 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q602 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q603 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q701 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q702 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q703 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q704 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q901 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q902 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q903 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q904 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q905 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q906 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q907 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q908 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| R201 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R202 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R203 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R204 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R205 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R206 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R207 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R208 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R209 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R210 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R211 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R212 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R213 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R214 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R216 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R217 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R218 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R219 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R220 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R222 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R223 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R225 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R227 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R228 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R229 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R230 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R231 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R233 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R234 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R235 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |

(CD-MM02(CDE)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R236 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R237 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R238 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R239 | 1-247-816-11 | s | CARBON 240 5% 1/4W |
| R301 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R302 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R303 | 1-247-814-31 | s | CARBON 200 5% 1/4W |
| R304 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R305 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R306 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R307 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R308 | 1-247-814-31 | s | CARBON 200 5% 1/4W |
| R309 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R310 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R311 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R312 | 1-247-862-31 | s | CARBON 20K 5% 1/4W |
| R313 | 1-247-862-31 | s | CARBON 20K 5% 1/4W |
| R315 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R316 | 1-247-800-31 | s | CARBON 51 5% 1/4W |
| R317 | 1-247-800-31 | s | CARBON 51 5% 1/4W |
| R318 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R319 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R321 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R322 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R323 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R324 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R326 | 1-247-800-31 | s | CARBON 51 5% 1/4W |
| R327 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R328 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R329 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R330 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R331 | 1-247-862-31 | s | CARBON 20K 5% 1/4W |
| R332 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R333 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R334 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R335 | 1-247-814-31 | s | CARBON 200 5% 1/4W |
| R336 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R337 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R343 | 1-215-411-31 | s | METAL 390 1% 1/4W |
| R345 | 1-215-477-31 | s | METAL 220K 1% 1/4W |
| R346 | 1-215-477-31 | s | METAL 220K 1% 1/4W |
| R347 | 1-215-448-31 | s | METAL 13K 1% 1/4W |
| R350 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R359 | 1-215-465-31 | s | METAL 68K 1% 1/4W |
| R381 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R382 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R383 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R384 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R385 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R386 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R401 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R402 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R403 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R404 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R405 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R406 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R407 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R408 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R409 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CD-MM02(CDE)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R410 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R411 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R412 | 1-249-410-11 | s | CARBON 270 5% 1/4W |
| R413 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R415 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R416 | 1-247-845-31 | s | CARBON 4.7K 5% 1/4W |
| R417 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R418 | 1-247-845-31 | s | CARBON 4.7K 5% 1/4W |
| R419 | 1-247-800-31 | s | CARBON 51 5% 1/4W |
| R420 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R422 | 1-247-814-31 | s | CARBON 200 5% 1/4W |
| R424 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R425 | 1-247-862-31 | s | CARBON 20K 5% 1/4W |
| R426 | 1-249-431-11 | s | CARBON 15K 5% 1/4W |
| R427 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R428 | 1-249-418-11 | s | CARBON 1.2K 5% 1/4W |
| R429 | 1-249-410-11 | s | CARBON 270 5% 1/4W |
| R432 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R434 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R435 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R436 | 1-247-814-31 | s | CARBON 200 5% 1/4W |
| R437 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R438 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R439 | 1-247-814-31 | s | CARBON 200 5% 1/4W |
| R440 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R501 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R502 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R503 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R504 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R505 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R506 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R507 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R508 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R509 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R510 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R511 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R512 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R513 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R514 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R515 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R516 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R517 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R518 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R519 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R520 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R521 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R522 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R523 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R524 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R525 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R601 | 1-249-430-11 | s | CARBON 12K 5% 1/4W |
| R603 | 1-247-882-11 | s | CARBON 130K 5% 1/4W |
| R605 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R606 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R607 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R608 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R701 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R702 | 1-247-862-31 | s | CARBON 20K 5% 1/4W |
| R703 | 1-247-862-31 | s | CARBON 20K 5% 1/4W |

(CD-MM02(CDE)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R704 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R705 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R706 | 1-247-814-31 | s | CARBON 200 5% 1/4W |
| R707 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R708 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R709 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R710 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R711 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R712 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R713 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R714 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R715 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R716 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R717 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R719 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R902 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R903 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R905 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R906 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R907 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R908 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R909 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R910 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R911 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R912 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R913 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R914 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R915 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R916 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| RV201 | 1-241-569-11 | s | RES, VAR, 2K |
| RV202 | 1-241-569-11 | s | RES, VAR, 2K |
| RV203 | 1-237-515-21 | s | RES, VAR 1K |
| RV204 | 1-237-515-21 | s | RES, VAR 1K |
| RV301 | 1-241-569-11 | s | RES, VAR 2K |
| RV302 | 1-241-569-11 | s | RES, VAR 2K |
| RV303 | 1-247-515-11 | s | RES, VAR 1K |
| RV304 | 1-247-515-11 | s | RES, VAR 1K |
| RV310 | 1-247-517-11 | s | RES, VAR 5K |
| RV311 | 1-247-518-11 | s | RES, VAR 10K |
| RV312 | 1-247-517-11 | s | RES, VAR 5K |
| RV313 | 1-247-518-11 | s | RES, VAR 10K |
| RV314 | 1-247-517-11 | s | RES, VAR 5K |
| RV315 | 1-247-517-11 | s | RES, VAR 5K |
| RV316 | 1-247-521-11 | s | RES, VAR 100K |
| RV317 | 1-247-521-11 | s | RES, VAR 100K |
| RV318 | 1-247-515-11 | s | RES, VAR 1K |
| RV400 | 1-247-514-11 | s | RES, VAR 500 |
| RV501 | 1-237-514-21 | s | RES, VAR 500 |
| X401 | 1-567-504-11 | s | OSCILLATOR, CRYSTAL |
| XF310 | 1-527-943-11 | s | FILTER, CERAMIC |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

CM-MM01(CMD)BOARD:MMV800/800-A/810/810-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-231-A | o | COMPLETE PCB, CM-MM01:MMV800/810 |
| C002 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C004 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C103 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C106 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C109 | 1-126-096-11 | s | ELECT 10uF 20% 35V |
| C117 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C119 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C121 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C136 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C138 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C201 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C202 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C203 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C204 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C205 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C206 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C207 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C208 | 1-162-890-11 | s | CERAMIC 820PF 5% 50V |
| C209 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C210 | 1-162-890-11 | s | CERAMIC 820PF 5% 50V |
| C212 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C216 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C217 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C219 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C224 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C225 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C227 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C229 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C301 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C401 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C406 | 1-164-033-11 | s | CERAMIC 39PF 5% 50V |
| C408 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C409 | 1-164-035-11 | s | CERAMIC 47PF 5% 50V |
| C506 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C509 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C511 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C515 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C601 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C603 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C605 | 1-124-257-00 | s | ELECT 2.2uF 20% 50V |
| C607 | 1-126-177-11 | s | ELECT 100uF 20% 10V |
| C608 | 1-164-035-11 | s | CERAMIC 47PF 5% 50V |
| C612 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C613 | 1-164-025-51 | s | CERAMIC 18PF 5% 50V |
| C615 | 1-162-726-11 | s | CERAMIC 470PF 1% 50V |
| C616 | 1-124-464-11 | s | ELECT 0.22MF 20% 50V |
| C619 | 1-126-163-11 | s | ELECT 4.7uF 20% 50V |
| C702 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C704 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C708 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C710 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C712 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C714 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C720 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C722 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C723 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C726 | 1-124-589-11 | s | ELECT 47uF 20% 16V |

(CM-MM01(CMD)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C728 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C809 | 1-102-816-00 | s | CERAMIC 120PF 5% 50V |
| C810 | 1-162-726-11 | s | CERAMIC 470PF 1% 50V |
| C812 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C813 | 1-162-889-11 | s | CERAMIC 680PF 5% 50V |
| C820 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C824 | 1-162-727-11 | s | CERAMIC 510PF 1% 50V |
| C825 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C826 | 1-162-889-11 | s | CERAMIC 680PF 5% 50V |
| C827 | 1-162-727-11 | s | CERAMIC 510PF 1% 50V |
| C828 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C831 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| D101 | 8-719-912-20 | s | DIODE 1SS120 |
| D102 | 8-719-912-20 | s | DIODE 1SS120 |
| D103 | 8-719-912-20 | s | DIODE 1SS120 |
| D601 | 8-719-912-20 | s | DIODE 1SS120 |
| D701 | 8-719-912-20 | s | DIODE 1SS120 |
| D702 | 8-719-912-20 | s | DIODE 1SS120 |
| D703 | 8-719-912-20 | s | DIODE 1SS120 |
| D704 | 8-719-912-20 | s | DIODE 1SS120 |
| D705 | 8-719-912-20 | s | DIODE 1SS120 |
| D706 | 8-719-912-20 | s | DIODE 1SS120 |
| D707 | 8-719-912-20 | s | DIODE 1SS120 |
| D708 | 8-719-912-20 | s | DIODE 1SS120 |
| D709 | 8-719-912-20 | s | DIODE 1SS120 |
| D710 | 8-719-912-20 | s | DIODE 1SS120 |
| D711 | 8-719-912-20 | s | DIODE 1SS120 |
| D802 | 1-807-049-21 | s | DIODE LN35GP |
| D803 | 1-807-049-21 | s | DIODE LN35GP |
| D805 | 1-807-049-21 | s | DIODE LN35GP |
| D806 | 8-719-912-20 | s | DIODE 1SS120 |
| D807 | 8-719-912-20 | s | DIODE 1SS120 |
| D808 | 8-719-912-20 | s | DIODE 1SS120 |
| D809 | 8-719-912-20 | s | DIODE 1SS120 |
| D810 | 8-719-912-20 | s | DIODE 1SS120 |
| D811 | 8-719-912-20 | s | DIODE 1SS120 |
| D812 | 8-719-912-20 | s | DIODE 1SS120 |
| DL201 | 1-415-828-11 | s | DELAY LINE |
| DL202 | 1-415-828-11 | s | DELAY LINE |
| FL1 | 1-424-338-11 | s | FILTER, NOISE |
| FL2 | 1-424-338-11 | s | FILTER, NOISE |
| FL3 | 1-424-338-11 | s | FILTER, NOISE |
| FL4 | 1-402-938-11 | s | FILTER, NOISE |
| FL5 | 1-402-938-11 | s | FILTER, NOISE |
| FL6 | 1-402-938-11 | s | FILTER, NOISE |
| FL501 | 1-235-277-00 | s | FILTER, BAND PASS |
| FL801 | 1-424-338-11 | s | FILTER, NOISE |
| IC101 | 8-759-700-67 | s | IC NJM79L08A |
| IC102 | 8-759-990-84 | s | IC TL084CN |
| IC103 | 8-759-990-84 | s | IC TL084CN |
| IC104 | 8-759-014-96 | s | IC MC1496P |
| IC105 | 8-759-112-07 | s | IC UPC78N08H |
| IC201 | 8-759-711-23 | s | IC NJM2234L |
| IC202 | 8-759-711-23 | s | IC NJM2234L |
| IC203 | 8-759-112-07 | s | IC UPC78N08H |
| IC301 | 8-759-105-34 | s | IC UPC78L08J |
| IC302 | 8-759-711-23 | s | IC NJM2234L |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CM-MM01(CMD)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC401 | 8-759-711-23 | s | IC NJM2234L |
| IC501 | 8-759-014-96 | s | IC MC1496P |
| IC502 | 8-759-711-23 | s | IC NJM2234L |
| IC503 | 8-759-700-67 | s | IC NJM79L08A |
| IC504 | 8-759-105-34 | s | IC UPC78L08J |
| IC601 | 8-759-112-06 | s | IC UPC78N05H |
| IC602 | 1-809-901-11 | s | IC HA118125MP |
| IC701 | 8-759-112-07 | s | IC UPC78N08H |
| IC702 | 8-759-700-67 | s | IC NJM79L08A |
| IC801 | 8-759-900-74 | s | IC SN74LS74AN |
| IC802 | 8-759-901-23 | s | IC SN74LS123N |
| IC803 | 8-759-901-23 | s | IC SN74LS123N |
| IC804 | 8-759-902-21 | s | IC SN74LS221N |
| IC805 | 8-759-902-21 | s | IC SN74LS221N |
| IC806 | 8-759-917-18 | s | IC SN74HCU04N |
| IC807 | 8-759-900-00 | s | IC SN74LS00N |
| IC808 | 8-759-982-70 | s | IC SN74LS07N |
| IC809 | 8-759-168-20 | s | IC TA78L09S |
| IC810 | 8-759-201-47 | s | IC TA7357AP |
| IC811 | 8-759-112-06 | s | IC UPC78N05H |
| L001 | 1-412-012-11 | s | INDUCTOR 100UH |
| L002 | 1-412-012-11 | s | INDUCTOR 100UH |
| L201 | 1-410-476-11 | s | INDUCTOR 33uH |
| L202 | 1-410-476-11 | s | INDUCTOR 33uH |
| L501 | 1-410-476-11 | s | INDUCTOR 33uH |
| L602 | 1-424-109-11 | s | COIL |
| L701 | 1-410-494-11 | s | INDUCTOR 1 |
| L702 | 1-410-494-11 | s | INDUCTOR 1 |
| Q101 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q102 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q103 | 8-729-203-04 | s | TRANSISTOR 2SK30A-GR |
| Q104 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q105 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q106 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q107 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q108 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q109 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q110 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q111 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q112 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q113 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q114 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q115 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q116 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q117 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q118 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q119 | 8-729-203-04 | s | TRANSISTOR 2SK30A-GR |
| Q121 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q122 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q123 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q201 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q202 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q203 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q204 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q206 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q210 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q211 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q212 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

(CM-MM01(CMD)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q213 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q214 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q215 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q216 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q217 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q301 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q401 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q402 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q403 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q404 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q405 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q406 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q407 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q408 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q501 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q502 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q601 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q602 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q701 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q702 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q703 | 8-729-203-04 | s | TRANSISTOR 2SK30A-GR |
| Q704 | 8-729-203-04 | s | TRANSISTOR 2SK30A-GR |
| Q705 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q706 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q707 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q708 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q709 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q710 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q711 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q712 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q713 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q714 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q715 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q716 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q717 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q718 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q719 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q721 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q722 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q801 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q802 | 8-729-203-05 | s | TRANSISTOR 2SK30A-GR3 |
| Q803 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q804 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q805 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q806 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q807 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q808 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q809 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q810 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q811 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q812 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q813 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q814 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q815 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q816 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q817 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q818 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| R101 | 1-249-405-11 | s | CARBON 100 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CM-MM01(CMD)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R102 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R103 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R104 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R105 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R106 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R107 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R108 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R109 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R110 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R111 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R112 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R113 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R114 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R115 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R116 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R117 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R118 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R119 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R120 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R121 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R122 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R123 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R124 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R125 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R126 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R127 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R128 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R129 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R130 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R131 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R132 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R133 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R134 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R135 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R136 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R137 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R138 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R139 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R140 | 1-249-427-11 | s | CARBON 6.8K 5% 1/4W |
| R141 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R142 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R143 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R144 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R145 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R146 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R147 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R148 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R149 | 1-249-427-11 | s | CARBON 6.8K 5% 1/4W |
| R150 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R152 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R153 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R154 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R155 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R157 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R158 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R159 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R161 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R162 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R163 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |

(CM-MM01(CMD)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R164 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R165 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R166 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R201 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R202 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R203 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R204 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R205 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R206 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R208 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R210 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R211 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R212 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R213 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R214 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R215 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R216 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R217 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R219 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R224 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R225 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R229 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R230 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R236 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R237 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R238 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R239 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R240 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R241 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R242 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R244 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R246 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R247 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R248 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R249 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R250 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R251 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R253 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R254 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R255 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R256 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R257 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R258 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R259 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R260 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R301 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R302 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R303 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R304 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R305 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R306 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R307 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R308 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R401 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R402 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R403 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R404 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R405 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R406 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R407 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R408 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R409 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R410 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R411 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R412 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R413 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R414 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R415 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R416 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R417 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R418 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R419 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R420 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R421 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R422 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R423 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R424 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R425 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R501 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R502 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R503 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R504 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R505 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R506 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R507 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R508 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R510 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R511 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R512 | 1-249-427-11 | s | CARBON 6.8K 5% 1/4W |
| R513 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R516 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R517 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R518 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R519 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R520 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R602 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R603 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R604 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R605 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R606 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R607 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R608 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R609 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R611 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R615 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R701 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R702 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R703 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R704 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R705 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R706 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R707 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R708 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R709 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R710 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R711 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R712 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R713 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |

(CM-MM01(CMD)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R714 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R715 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R716 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R717 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R718 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R719 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R720 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R721 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R722 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R723 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R724 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R725 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R726 | 1-247-852-11 | s | CARBON 7.5K 5% 1/4W |
| R727 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R728 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R729 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R730 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R732 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R733 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R734 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R735 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R736 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R737 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R738 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R739 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R740 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R741 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R742 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R743 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R801 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R802 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R803 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R804 | 1-215-467-00 | s | METAL 82K 1% 1/4W |
| R805 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R806 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R807 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R808 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R809 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R810 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R811 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R812 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R813 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R814 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R815 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R816 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R818 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R819 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R820 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R821 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R822 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R823 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R824 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R825 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R827 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R828 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R829 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R830 | 1-247-882-11 | s | CARBON 130K 5% 1/4W |
| R832 | 1-249-430-11 | s | CARBON 12K 5% 1/4W |
| R834 | 1-247-814-11 | s | CARBON 200 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CM-MM01(CMD)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R835 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R836 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R837 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R838 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| RV101 | 1-237-235-11 | s | RES, VAR 10K |
| RV102 | 1-237-512-21 | s | RES, VAR 100 |
| RV201 | 1-237-515-21 | s | RES, VAR 1K |
| RV202 | 1-237-515-21 | s | RES, VAR 1K |
| RV401 | 1-223-283-11 | s | RES, VAR 500 |
| RV402 | 1-223-283-11 | s | RES, VAR 500 |
| RV501 | 1-237-512-21 | s | RES, VAR 100 |
| X601 | 1-577-166-11 | s | OSCILLATOR, CRYSTAL |

CM-MM02(CMD)BOARD:MMV802/802-A(PAL)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-249-A | o | COMPLETE PCB, CM-MM02:MMV802(PAL) |
| BP601 | 1-236-311-11 | s | FILTER, BAND PASS |
| C002 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C004 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C103 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C106 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C109 | 1-126-096-11 | s | ELECT 10uF 20% 35V |
| C117 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C119 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C121 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C136 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C138 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C201 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C202 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C203 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C204 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C205 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C206 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C207 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C209 | 1-164-014-51 | s | CERAMIC 5PF 0.25PF 50V |
| C210 | 1-162-716-11 | s | CERAMIC 180PF 5% 50V |
| C211 | 1-102-525-61 | s | CERAMIC 68PF 5% 50V |
| C212 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C216 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C217 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C218 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C219 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C224 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C225 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C227 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C229 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C231 | 1-164-019-51 | s | CERAMIC 10PF 0.5PF 50V |
| C232 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C301 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C401 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C406 | 1-164-025-11 | s | CERAMIC 18PF 5% 50V |
| C408 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C409 | 1-164-035-11 | s | CERAMIC 47PF 5% 50V |
| C506 | 1-164-027-11 | s | CERAMIC 22PF 5% 50V |
| C509 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C511 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C515 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C604 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C605 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C610 | 1-124-465-00 | s | ELECT 0.47uF 20% 50V |
| C611 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C612 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C613 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C614 | 1-102-973-11 | s | CERAMIC 100PF 5% 50V |
| C615 | 1-162-724-11 | s | CERAMIC 390PF 5% 50V |
| C616 | 1-126-162-11 | s | ELECT 3.3uF 20% 50V |
| C617 | 1-124-252-00 | s | ELECT 0.33uF 20% 50V |
| C619 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C621 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C622 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C626 | 1-126-163-11 | s | ELECT 4.7uF 20% 50V |
| C627 | 1-126-177-11 | s | ELECT 100uF 20% 6.3V |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CM-MM02(CMD)BOARD:MMV802/802-A(PAL))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C628 | 1-164-048-11 | s | CERAMIC 12PF 5% 50V |
| C702 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C704 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C708 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C710 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C712 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C714 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C720 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C722 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C723 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C726 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C728 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C809 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C810 | 1-162-726-11 | s | CERAMIC 470PF 1% 50V |
| C812 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C813 | 1-162-889-11 | s | CERAMIC 680PF 5% 50V |
| C820 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C824 | 1-162-727-11 | s | CERAMIC 510PF 1% 50V |
| C825 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C826 | 1-162-889-11 | s | CERAMIC 680PF 5% 50V |
| C827 | 1-162-727-11 | s | CERAMIC 510PF 1% 50V |
| C828 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C831 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| D101 | 8-719-912-20 | s | DIODE 1SS120 |
| D102 | 8-719-912-20 | s | DIODE 1SS120 |
| D103 | 8-719-912-20 | s | DIODE 1SS120 |
| D104 | 8-719-936-56 | s | DIODE DAN209S |
| D601 | 8-719-912-20 | s | DIODE 1SS120 |
| D701 | 8-719-912-20 | s | DIODE 1SS120 |
| D702 | 8-719-912-20 | s | DIODE 1SS120 |
| D703 | 8-719-912-20 | s | DIODE 1SS120 |
| D704 | 8-719-912-20 | s | DIODE 1SS120 |
| D705 | 8-719-912-20 | s | DIODE 1SS120 |
| D706 | 8-719-912-20 | s | DIODE 1SS120 |
| D707 | 8-719-912-20 | s | DIODE 1SS120 |
| D708 | 8-719-912-20 | s | DIODE 1SS120 |
| D709 | 8-719-912-20 | s | DIODE 1SS120 |
| D710 | 8-719-912-20 | s | DIODE 1SS120 |
| D711 | 8-719-912-20 | s | DIODE 1SS120 |
| D802 | 1-807-049-21 | s | DIODE LN35GP |
| D803 | 1-807-049-21 | s | DIODE LN35GP |
| D805 | 1-807-049-21 | s | DIODE LN35GP |
| D806 | 8-719-912-20 | s | DIODE 1SS120 |
| D807 | 8-719-912-20 | s | DIODE 1SS120 |
| D808 | 8-719-912-20 | s | DIODE 1SS120 |
| D809 | 8-719-912-20 | s | DIODE 1SS120 |
| D813 | 8-719-400-35 | s | LED LN35GP, GREEN |
| DL202 | 1-415-828-11 | s | DELAY LINE |
| FL1 | 1-424-338-11 | s | FILTER, NOISE |
| FL2 | 1-424-338-11 | s | FILTER, NOISE |
| FL3 | 1-424-338-11 | s | FILTER, NOISE |
| FL4 | 1-402-938-11 | s | FILTER, NOISE |
| FL5 | 1-402-938-11 | s | FILTER, NOISE |
| FL6 | 1-402-938-11 | s | FILTER, NOISE |
| FL501 | 1-235-439-11 | s | FILTER, BAND PASS(4.43MHz) |
| FL801 | 1-424-338-11 | s | FILTER, NOISE |
| IC101 | 8-759-700-67 | s | IC NJM79L08A |

(CM-MM02(CMD)BOARD:MMV802/802-A(PAL))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC102 | 8-759-990-84 | s | IC TL084CN |
| IC103 | 8-759-990-84 | s | IC TL084CN |
| IC104 | 8-759-014-96 | s | IC MC1496P |
| IC105 | 8-759-112-07 | s | IC UPC78N08H |
| IC201 | 8-759-711-23 | s | IC NJM2234L |
| IC202 | 8-759-711-23 | s | IC NJM2234L |
| IC203 | 8-759-112-07 | s | IC UPC78N08H |
| IC301 | 8-759-105-34 | s | IC UPC78L08J |
| IC302 | 8-759-711-23 | s | IC NJM2234L |
| IC401 | 8-759-711-23 | s | IC NJM2234L |
| IC501 | 8-759-014-96 | s | IC MC1496P |
| IC502 | 8-759-711-23 | s | IC NJM2234L |
| IC503 | 8-759-700-67 | s | IC NJM79L08A |
| IC504 | 8-759-105-34 | s | IC UPC78L08J |
| IC601 | 8-759-112-06 | s | IC UPC78N05H |
| IC602 | 1-810-347-11 | s | IC HA118090MA |
| IC701 | 8-759-112-07 | s | IC UPC78N08H |
| IC702 | 8-759-700-67 | s | IC NJM79L08A |
| IC801 | 8-759-900-74 | s | IC SN74LS74AN |
| IC802 | 8-759-901-23 | s | IC SN74LS123N |
| IC803 | 8-759-901-23 | s | IC SN74LS123N |
| IC804 | 8-759-902-21 | s | IC SN74LS221N |
| IC805 | 8-759-902-21 | s | IC SN74LS221N |
| IC806 | 8-759-917-18 | s | IC SN74HCU04N |
| IC807 | 8-759-900-00 | s | IC SN74LS00N |
| IC808 | 8-759-982-70 | s | IC SN74LS07N |
| IC809 | 8-759-168-20 | s | IC TA78L09S |
| IC810 | 8-759-201-47 | s | IC TA7357AP |
| IC811 | 8-759-112-06 | s | IC UPC78N05H |
| L001 | 1-412-012-11 | s | INDUCTOR 100UH |
| L002 | 1-412-012-11 | s | INDUCTOR 100UH |
| L201 | 1-408-420-11 | s | INDUCTOR 82uH |
| Q101 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q102 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q103 | 8-729-203-04 | s | TRANSISTOR 2SK30A-GR |
| Q104 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q105 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q106 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q107 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q108 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q109 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q110 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q111 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q112 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q113 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q114 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q115 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q116 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q117 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q118 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q121 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q122 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q123 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q125 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q126 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q201 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q202 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q203 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q204 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q206 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q210 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q211 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q212 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q213 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q214 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q215 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q216 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q217 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q301 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q401 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q402 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q403 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q404 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q405 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q406 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q407 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q408 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q501 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q502 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q601 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q602 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q603 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q701 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q702 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q703 | 8-729-203-04 | s | TRANSISTOR 2SK30A-GR |
| Q704 | 8-729-203-04 | s | TRANSISTOR 2SK30A-GR |
| Q705 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q706 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q707 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q708 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q709 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q710 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q711 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q712 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q713 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q714 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q715 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q716 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q717 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q718 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q719 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q720 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q721 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q722 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q723 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q801 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q806 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q807 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q808 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q809 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q810 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q811 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q812 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q813 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q814 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q815 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| Q816 | 8-729-900-80 | s | TRANSISTOR DTC114ES |

(CM-MM02(CMD)BOARD:MMV802/802-A(PAL))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q817 | 8-729-900-61 | s | TRANSISTOR DTA114ES |
| Q818 | 8-729-900-80 | s | TRANSISTOR DTC114ES |
| R101 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R102 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R103 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R104 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R105 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R106 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R107 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R108 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R109 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R110 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R111 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R112 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R113 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R114 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R115 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R116 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R117 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R118 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R119 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R120 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R121 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R122 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R123 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R124 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R125 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R126 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R127 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R128 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R129 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R130 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R131 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R132 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R133 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R134 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R135 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R136 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R137 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R138 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R139 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R140 | 1-249-427-11 | s | CARBON 6.8K 5% 1/4W |
| R141 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R142 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R143 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R144 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R145 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R146 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R147 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R148 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R149 | 1-249-427-11 | s | CARBON 6.8K 5% 1/4W |
| R150 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R152 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R153 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R154 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R157 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R158 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R161 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CM-MM02(CMD)BOARD:MMV802/802-A(PAL))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R162 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R163 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R164 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R165 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R166 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R173 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R174 | 1-247-847-31 | s | CARBON 4.7K 5% 1/4W |
| R175 | 1-247-847-31 | s | CARBON 4.7K 5% 1/4W |
| R176 | 1-247-847-31 | s | CARBON 4.7K 5% 1/4W |
| R201 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R202 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R203 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R204 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R205 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R206 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R208 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R210 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R211 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R212 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R213 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R214 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R215 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R216 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R217 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R219 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R224 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R225 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R229 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R230 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R236 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R237 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R238 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R239 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R240 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R241 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R242 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R243 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R244 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R246 | 1-249-431-11 | s | CARBON 15K 5% 1/4W |
| R247 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R248 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R249 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R250 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R251 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R253 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R254 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R255 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R256 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R257 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R258 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R259 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R260 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R261 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R262 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R301 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R302 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R303 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R304 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R305 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |

(CM-MM02(CMD)BOARD:MMV802/802-A(PAL))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R306 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R307 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R308 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R401 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R402 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R403 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R404 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R405 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R406 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R407 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R408 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R409 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R410 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R411 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R412 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R413 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R414 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R415 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R416 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R417 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R418 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R419 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R420 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R421 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R422 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R423 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R424 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R425 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R501 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R502 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R503 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R504 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R505 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R506 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R507 | 1-249-418-11 | s | CARBON 1.2K 5% 1/4W |
| R508 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R510 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R511 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R512 | 1-249-427-11 | s | CARBON 6.8K 5% 1/4W |
| R513 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R516 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R517 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R518 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R519 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R520 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R602 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R603 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R604 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R605 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R606 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R607 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R608 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R609 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R610 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R611 | 1-247-811-31 | s | CARBON 150 5% 1/4W |
| R612 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R613 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R614 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R615 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CM-MM02(CMD)BOARD:MMV802/802-A(PAL))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R617 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R701 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R702 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R703 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R704 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R705 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R706 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R707 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R708 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R709 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R710 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R711 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R712 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R713 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R714 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R715 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R716 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R717 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R718 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R719 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R720 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R721 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R722 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R723 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R724 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R725 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R726 | 1-247-852-11 | s | CARBON 7.5K 5% 1/4W |
| R727 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R728 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R729 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R730 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R732 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R733 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R734 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R735 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R736 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R737 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R738 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R739 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R740 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R741 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R742 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R743 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R744 | 1-249-385-11 | s | CARBON 2.2 5% 1/4W |
| R745 | 1-247-862-31 | s | CARBON 20K 5% 1/4W |
| R746 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R801 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R802 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R803 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R805 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R806 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R807 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R808 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R809 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R810 | 1-247-862-11 | s | CARBON 20K 5% 1/4W |
| R811 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R812 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R813 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R814 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |

(CM-MM02(CMD)BOARD:MMV802/802-A(PAL))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R816 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R820 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R821 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R822 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R823 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R824 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R825 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R827 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R828 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R829 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R830 | 1-247-882-11 | s | CARBON 130K 5% 1/4W |
| R832 | 1-249-430-11 | s | CARBON 12K 5% 1/4W |
| R834 | 1-247-814-11 | s | CARBON 200 5% 1/4W |
| R835 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R836 | 1-249-442-11 | s | CARBON 510 5% 1/4W |
| R837 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R838 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| RV101 | 1-237-235-11 | s | RES, VAR 10K |
| RV102 | 1-237-512-21 | s | RES, VAR 100 |
| RV201 | 1-237-515-21 | s | RES, VAR 1K |
| RV202 | 1-237-515-21 | s | RES, VAR 1K |
| RV401 | 1-223-283-11 | s | RES, VAR 500 |
| RV402 | 1-223-283-11 | s | RES, VAR 500 |
| RV501 | 1-237-512-21 | s | RES, VAR 100 |
| S801 | 1-553-441-11 | s | SWITCH, TOGGLE |
| X601 | 1-577-166-11 | s | OSCILLATOR, CRYSTAL |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

CM-MM03(CMD)BOARD:MMV802/802-A(SECAM)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-250-A | o | COMPLETE PCB, CM-MM03:MMV802(SECAM) |
| C102 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C104 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C106 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C108 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C110 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C201 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C202 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C203 | 1-162-875-11 | s | CERAMIC 68pF 5% 50V |
| C204 | 1-164-097-51 | s | CERAMIC 0.022uF 50V |
| C205 | 1-164-097-51 | s | CERAMIC 0.022uF 50V |
| C206 | 1-164-097-51 | s | CERAMIC 0.022uF 50V |
| C208 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C209 | 1-164-097-51 | s | CERAMIC 0.022uF 50V |
| C210 | 1-164-097-51 | s | CERAMIC 0.022uF 50V |
| C211 | 1-162-875-11 | s | CERAMIC 68pF 5% 50V |
| C213 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C215 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C216 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C217 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C218 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C219 | 1-162-875-11 | s | CERAMIC 68pF 5% 50V |
| C221 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C223 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C224 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C225 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C226 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C227 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C228 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C230 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C231 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C232 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C233 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C234 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C235 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C236 | 1-162-875-11 | s | CERAMIC 68pF 5% 50V |
| C301 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C302 | 1-102-973-00 | s | CERAMIC 100pF 5% 50V |
| C303 | 1-136-162-00 | s | FILM 0.056uF 5% 50V |
| C304 | 1-126-933-51 | s | ELECT 100uF 20% 16V |
| C305 | 1-124-034-51 | s | ELECT 30uF 20% 16V |
| C307 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C401 | 1-162-889-21 | s | CERAMIC 680pF 5% 50V |
| C403 | 1-162-889-21 | s | CERAMIC 680pF 5% 50V |
| C405 | 1-162-889-21 | s | CERAMIC 680pF 5% 50V |
| C407 | 1-162-889-21 | s | CERAMIC 680pF 5% 50V |
| C414 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C501 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C502 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C503 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C506 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C506 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C507 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C508 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C509 | 1-164-031-51 | s | CERAMIC 33pF 5% 50V |
| C509 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C510 | 1-164-096-51 | s | CERAMIC 0.01uF 50V |
| C513 | 1-124-589-11 | s | ELECT 47uF 20% 16V |

(CM-MM03(CMD)BOARD:MMV802/802-A(SECAM))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C515 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| CF301 | 1-527-943-11 | s | FILTER, CERAMIC |
| D201 | 9-719-104-10 | s | DIODE 1SS99 |
| D202 | 9-719-104-10 | s | DIODE 1SS99 |
| DL201 | 1-415-703-11 | s | DELAY LINE |
| FL201 | 1-424-617-11 | s | COIL, BELL FILTER |
| FL202 | 1-236-566-11 | s | FILTER, BAND PASS |
| FL203 | 1-239-041-11 | s | FILTER, BAND PASS |
| IC101 | 8-759-701-75 | s | IC NJM7805FA |
| IC102 | 8-759-701-59 | s | IC NJM78M09FA |
| IC201 | 1-809-314-11 | s | IC BA7107S |
| IC202 | 8-759-057-42 | s | IC MC14576BP |
| IC301 | 8-759-996-63 | s | IC BA7025L |
| IC401 | 8-759-239-47 | s | IC TC74HC123AP |
| IC402 | 8-759-239-47 | s | IC TC74HC123AP |
| IC403 | 8-759-239-47 | s | IC TC74HC123AP |
| IC404 | 8-759-239-47 | s | IC TC74HC123AP |
| IC501 | 8-759-057-39 | s | IC MC14577BP |
| IC502 | 8-759-001-16 | s | IC MC10116L |
| IC503 | 8-759-057-42 | s | IC MC145768BP |
| IC504 | 8-759-032-81 | s | IC MC74HC74AN |
| L101 | 1-412-012-11 | s | INDUCTOR 100 |
| L202 | 1-424-281-11 | s | COIL, FILTER |
| L301 | 1-412-768-11 | s | INDUCTOR 6.8 |
| Q201 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q202 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q203 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q204 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q205 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q206 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q207 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q301 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q302 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q501 | 8-729-119-76 | s | TRANSISTOR 2SA1175-HFE |
| R210 | 1-215-389-31 | s | METAL 47 1% 1/4W |
| R240 | 1-215-465-31 | s | METAL 68k 1% 1/4W |
| R245 | 1-215-411-31 | s | METAL 390 1% 1/4W |
| R250 | 1-215-448-31 | s | METAL 13k 1% 1/4W |
| R252 | 1-215-477-31 | s | METAL 220k 1% 1/4W |
| R253 | 1-215-477-31 | s | METAL 220k 1% 1/4W |
| R255 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R260 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R401 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R402 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R404 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R405 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R406 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R407 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R408 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R521 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| RV201 | 1-237-517-11 | s | RES, VAR 5k |
| RV202 | 1-241-781-11 | s | RES, VAR 470 |
| RV203 | 1-237-521-11 | s | RES, VAR 100k |
| RV204 | 1-237-521-11 | s | RES, VAR 100k |
| RV401 | 1-237-517-11 | s | RES, VAR 5k |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

(CM-MM03(CMD)BOARD:MMV802/802-A(SECAM))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| RV402 | 1-237-518-11 | s | RES, VAR 10k |
| RV403 | 1-237-518-11 | s | RES, VAR 10k |
| RV404 | 1-237-517-11 | s | RES, VAR 5k |
| RV405 | 1-237-518-11 | s | RES, VAR 10k |
| RV406 | 1-237-518-11 | s | RES, VAR 10k |
| RV407 | 1-237-518-11 | s | RES, VAR 10k |
| RV408 | 1-237-518-11 | s | RES, VAR 10k |
| RV501 | 1-237-515-11 | s | RES, VAR 1k |
| RV502 | 1-237-515-11 | s | RES, VAR 1k |
| RV503 | 1-237-517-11 | s | RES, VAR 5k |
| S301 | 1-553-441-11 | s | SWITCH, TOGGLE |
| S302 | 1-553-441-11 | s | SWITCH, TOGGLE |

---

CR BOARD

---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-104-B | o | MOUNTED PCB, CR |
| CN1 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| D1 | 1-807-068-11 | s | PHOTO-INTERRUPTER GP1A07 |
| D2 | 1-807-068-11 | s | PHOTO-INTERRUPTER GP1A07 |
| R1 | 1-247-114-00 | s | CARBON 200 5% 1/4W |

---

CSV BOARD:MMV800/800-A

---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-167-B | o | COMPLETE PCB, CSV:MMV800/800-A |
| C6 | 1-123-369-00 | s | ELECT 4.7uF 20% 63V |
| C7 | 1-123-369-00 | s | ELECT 4.7uF 20% 63V |
| C19 | 1-109-542-00 | s | MICA 220PF 5% 100V |
| C22 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C28 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C30 | 1-131-342-00 | s | TANTALUM 0.15uF 10% 35V |
| C35 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C37 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C41 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C42 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C43 | 1-123-381-00 | s | ELECT 2.2uF 20% 100V |
| C44 | 1-123-381-00 | s | ELECT 2.2uF 20% 100V |
| C46 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C49 | 1-126-948-11 | s | ELECT 100uF 20% 10V |
| C50 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C103 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C201 | 1-131-342-00 | s | TANTALUM 0.15uF 10% 35V |
| C202 | 1-131-341-00 | s | TANTALUM 0.1uF 10% 35V |
| C203 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C204 | 1-131-360-00 | s | TANTALUM 15uF 20% 10V |
| C206 | 1-107-077-00 | s | MICA 47PF 5% 50V |
| C207 | 1-131-351-00 | o | TANTALUM 4.7uF 10% 35V |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-820-12 | s | LED TLR214, RED |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-815-85 | s | DIODE 1S1585 |
| D6 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-815-85 | s | DIODE 1S1585 |
| D8 | 8-719-815-85 | s | DIODE 1S1585 |
| D9 | 8-719-815-85 | s | DIODE 1S1585 |
| D101 | 8-719-815-85 | s | DIODE 1S1585 |
| D201 | 8-719-815-85 | s | DIODE 1S1585 |
| D202 | 8-719-815-85 | s | DIODE 1S1585 |
| D203 | 8-719-815-85 | s | DIODE 1S1585 |
| D401 | 8-719-815-85 | s | DIODE 1S1585 |
| FL401 | 1-424-338-11 | s | FILTER, NOISE |
| IC2 | 8-743-978-00 | s | IC BX3978 |
| IC3 | 8-759-910-83 | s | IC TL072ACP |
| IC4 | 8-759-000-49 | s | IC MC14066BCP |
| IC5 | 8-759-945-58 | s | IC RC4558P |
| IC6 | 8-759-945-58 | s | IC RC4558P |
| IC7 | 8-759-345-38 | s | IC HD14538BP |
| IC8 | 8-759-200-56 | s | IC TC4526BP |
| IC10 | 8-759-240-11 | s | IC TC4011BP |
| IC11 | 8-759-345-38 | s | IC HD14538BP |
| IC12 | 8-759-205-76 | s | IC TC504013BP |
| IC13 | 8-759-201-29 | s | IC TC9122P |
| IC14 | 8-759-240-40 | s | IC TC4040BP |
| IC15 | 8-759-345-38 | s | IC HD14538BP |
| IC16 | 8-759-910-83 | s | IC TL072ACP |
| IC17 | 8-759-000-49 | s | IC MC14066BCP |
| IC18 | 8-759-945-58 | s | IC RC4558P |
| IC20 | 8-759-345-38 | s | IC HD14538BP |
| IC21 | 8-759-240-11 | s | IC TC4011BP |
| IC22 | 8-759-240-11 | s | IC TC4011BP |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CSV BOARD:MMV800/800-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC23 | 8-759-240-11 | s | IC TC4011BP |
| IC24 | 8-743-977-00 | s | IC BX3977 |
| IC25 | 8-759-945-58 | s | IC RC4558P |
| IC26 | 8-759-240-11 | s | IC TC4011BP |
| IC28 | 8-759-345-38 | s | IC HD14538BP |
| IC29 | 8-759-345-38 | s | IC HD14538BP |
| IC401 | 8-759-131-11 | s | IC UPC311C |
| L1 | 1-409-339-00 | s | COIL, CHOKE |
| L4 | 1-409-339-00 | s | COIL, CHOKE |
| L5 | 1-409-339-00 | s | COIL, CHOKE |
| Q1 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q2 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q3 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q4 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q6 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q7 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q8 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q9 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q10 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q11 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q12 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q101 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q201 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q202 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q401 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| R78 | 1-247-885-00 | s | CARBON 180K 5% 1/4W |
| RB201 | 1-245-033-81 | s | RESISTOR BLOCK 10Kx4 |
| RV4 | 1-237-516-21 | s | RES, VAR 2K |
| RV5 | 1-237-521-21 | s | RES, VAR 100K |
| RV6 | 1-237-521-21 | s | RES, VAR 100K |
| RV8 | 1-237-521-21 | s | RES, VAR 100K |
| RV9 | 1-237-520-21 | s | RES, VAR 50K |
| RV10 | 1-230-677-11 | s | RES, VAR 100K |
| RV11 | 1-237-521-21 | s | RES, VAR 100K |
| RV12 | 1-237-515-21 | s | RES, VAR 1K |
| RV18 | 1-237-521-21 | s | RES, VAR 100K |
| RV201 | 1-237-518-21 | s | RES, VAR 10K |
| RV203 | 1-237-515-21 | s | RES, VAR 1K |
| RV206 | 1-237-519-21 | s | RES, VAR 20K |
| RY1 | 1-515-476-00 | s | RELAY |
| SW2 | 1-553-439-00 | s | SWITCH, TOGGLE |
| SW4 | 1-554-964-11 | s | SWITCH, ROTARY |
| SW5 | 1-554-964-11 | s | SWITCH, ROTARY |
| SW6 | 1-554-964-11 | s | SWITCH, ROTARY |
| SW7 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW101 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW202 | 1-553-925-00 | s | SWITCH, DIGITAL |
| SW204 | 1-553-439-00 | s | SWITCH, TOGGLE |

---

CSV BOARD:MMV810/810-A

---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-136-B | o | COMPLETE PCB, CSV:MMV810 |
| C6 | 1-123-369-00 | s | ELECT 4.7uF 20% 63V |
| C7 | 1-123-369-00 | s | ELECT 4.7uF 20% 63V |
| C19 | 1-109-542-00 | s | MICA 220PF 5% 100V |
| C22 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C28 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C30 | 1-131-342-00 | s | TANTALUM 0.15uF 10% 35V |
| C32 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C33 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C35 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C37 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C41 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C41 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C43 | 1-123-381-00 | s | ELECT 2.2uF 20% 100V |
| C44 | 1-123-381-00 | s | ELECT 2.2uF 20% 100V |
| C201 | 1-131-342-00 | s | TANTALUM 0.15uF 10% 35V |
| C202 | 1-131-341-00 | s | TANTALUM 0.1uF 10% 35V |
| C203 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C204 | 1-131-360-00 | s | TANTALUM 15uF 20% 10V |
| C206 | 1-107-077-00 | s | MICA 47PF 5% 50V |
| C207 | 1-131-351-00 | o | TANTALUM 4.7uF 10% 35V |
| C301 | 1-131-365-00 | o | TANTALUM 10uF 10% 20V |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-800-60 | s | LED TLR214, RED |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-815-85 | s | DIODE 1S1585 |
| D6 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-815-85 | s | DIODE 1S1585 |
| D8 | 8-719-815-85 | s | DIODE 1S1585 |
| D9 | 8-719-815-85 | s | DIODE 1S1585 |
| D101 | 8-719-815-85 | s | DIODE 1S1585 |
| D201 | 8-719-815-85 | s | DIODE 1S1585 |
| D202 | 8-719-815-85 | s | DIODE 1S1585 |
| D203 | 8-719-815-85 | s | DIODE 1S1585 |
| D301 | 8-719-815-85 | s | DIODE 1S1585 |
| D401 | 8-719-815-85 | s | DIODE 1S1585 |
| FL401 | 1-424-338-11 | s | FILTER, NOISE |
| IC2 | 8-743-978-00 | s | IC BX3978 |
| IC3 | 8-759-910-83 | s | IC TL072ACP |
| IC4 | 8-759-000-49 | s | IC MC14066BCP |
| IC5 | 8-759-945-58 | s | IC RC4558P |
| IC6 | 8-759-945-58 | s | IC RC4558P |
| IC7 | 8-759-345-38 | s | IC HD14538BP |
| IC8 | 8-759-200-56 | s | IC TC4526BP |
| IC10 | 8-759-240-11 | s | IC TC4011BP |
| IC11 | 8-759-345-38 | s | IC HD14538BP |
| IC12 | 8-759-205-76 | s | IC TC504013BP |
| IC13 | 8-759-201-29 | s | IC TC9122P |
| IC14 | 8-759-240-40 | s | IC TC4040BP |
| IC15 | 8-759-345-38 | s | IC HD14538BP |
| IC16 | 8-759-910-83 | s | IC TL072ACP |
| IC17 | 8-759-000-49 | s | IC MC14066BCP |
| IC18 | 8-759-945-58 | s | IC RC4558P |
| IC20 | 8-759-345-38 | s | IC HD14538BP |
| IC21 | 8-759-240-11 | s | IC TC4011BP |
| IC22 | 8-759-240-11 | s | IC TC4011BP |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CSV BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC23 | 8-759-240-11 | s | IC TC4011BP |
| IC24 | 8-743-977-00 | s | IC BX3977 |
| IC25 | 8-759-945-58 | s | IC RC4558P |
| IC26 | 8-759-240-11 | s | IC TC4011BP |
| IC28 | 8-759-345-38 | s | IC HD14538BP |
| IC29 | 8-759-345-38 | s | IC HD14538BP |
| IC301 | 8-759-345-38 | s | IC HD14538BP |
| IC401 | 8-759-131-11 | s | IC UPC311C |
| L1 | 1-409-339-00 | s | COIL, CHOKE |
| L4 | 1-409-339-00 | s | COIL, CHOKE |
| L5 | 1-409-339-00 | s | COIL, CHOKE |
| Q1 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q2 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q3 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q4 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q6 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q7 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q8 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q9 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q10 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q11 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q12 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q101 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q201 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q202 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q301 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q302 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q401 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| R78 | 1-247-885-00 | s | CARBON 180K 5% 1/4W |
| R211 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| RB201 | 1-245-033-81 | s | RESISTOR BLOCK 10Kx4 |
| RV3 | 1-237-521-21 | s | RES, VAR 100K |
| RV4 | 1-237-516-21 | s | RES, VAR 2K |
| RV5 | 1-237-521-21 | s | RES, VAR 100K |
| RV6 | 1-237-521-21 | s | RES, VAR 100K |
| RV7 | 1-237-518-21 | s | RES, VAR 10K |
| RV8 | 1-237-521-21 | s | RES, VAR 100K |
| RV9 | 1-237-520-21 | s | RES, VAR 50K |
| RV10 | 1-230-677-11 | s | RES, VAR 100K |
| RV11 | 1-237-521-21 | s | RES, VAR 100K |
| RV12 | 1-237-515-21 | s | RES, VAR 1K |
| RV18 | 1-237-521-21 | s | RES, VAR 100K |
| RV201 | 1-237-518-21 | s | RES, VAR 10K |
| RV203 | 1-237-515-21 | s | RES, VAR 1K |
| RV204 | 1-237-515-21 | s | RES, VAR 1K |
| RV205 | 1-237-521-21 | s | RES, VAR 100K |
| RV206 | 1-237-518-21 | s | RES, VAR 10K |
| RY1 | 1-515-476-00 | s | RELAY |
| SW2 | 1-553-439-00 | s | SWITCH, TOGGLE |
| SW4 | 1-554-964-11 | s | SWITCH, ROTARY |
| SW5 | 1-554-964-11 | s | SWITCH, ROTARY |
| SW6 | 1-554-964-11 | s | SWITCH, ROTARY |
| SW7 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW101 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW201 | 1-553-441-00 | s | SWITCH, TOGGLE |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CSV BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| SW202 | 1-553-925-00 | s | SWITCH, DIGITAL |
| SW203 | 1-553-439-00 | s | SWITCH, TOGGLE |
| SW204 | 1-553-439-00 | s | SWITCH, TOGGLE |
| SW205 | 1-553-439-00 | s | SWITCH, TOGGLE |

CSV BOARD:MMV802/802-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-119-B | o | COMPLETE PCB, CSV:MMV802 |
| C6 | 1-123-369-00 | s | ELECT 4.7uF 20% 63V |
| C7 | 1-123-369-00 | s | ELECT 4.7uF 20% 63V |
| C19 | 1-109-542-00 | s | MICA 220PF 5% 100V |
| C22 | 1-131-345-00 | s | TANTALUM 0.047uF 20% 35V |
| C28 | 1-131-345-00 | s | TANTALUM 0.047uF 20% 35V |
| C30 | 1-131-342-00 | s | TANTALUM 0.15uF 10% 35V |
| C31 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C32 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C33 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C35 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C37 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C41 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C42 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C43 | 1-123-381-00 | s | ELECT 2.2uF 20% 100V |
| C44 | 1-123-381-00 | s | ELECT 2.2uF 20% 100V |
| C46 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C49 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C50 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C103 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C201 | 1-131-342-00 | s | TANTALUM 0.15uF 10% 35V |
| C202 | 1-131-341-00 | s | TANTALUM 0.1uF 10% 35V |
| C203 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C204 | 1-131-360-00 | s | TANTALUM 15uF 20% 10V |
| C206 | 1-107-077-00 | s | MICA 47PF 5% 50V |
| C207 | 1-131-351-00 | o | TANTALUM 4.7uF 10% 35V |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-820-12 | s | LED TLR214, RED |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-815-85 | s | DIODE 1S1585 |
| D6 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-815-85 | s | DIODE 1S1585 |
| D8 | 8-719-815-85 | s | DIODE 1S1585 |
| D9 | 8-719-815-85 | s | DIODE 1S1585 |
| D101 | 8-719-815-85 | s | DIODE 1S1585 |
| D201 | 8-719-815-85 | s | DIODE 1S1585 |
| D202 | 8-719-815-85 | s | DIODE 1S1585 |
| D203 | 8-719-815-85 | s | DIODE 1S1585 |
| D401 | 8-719-815-85 | s | DIODE 1S1585 |
| FL401 | 1-424-338-11 | s | FILTER, NOISE |
| IC2 | 8-743-978-00 | s | IC BX3978 |
| IC3 | 8-759-910-83 | s | IC TL072ACP |
| IC4 | 8-759-000-49 | s | IC MC14066BCP |
| IC5 | 8-759-145-58 | s | IC RC4558P |
| IC6 | 8-759-145-58 | s | IC RC4558P |
| IC7 | 8-759-345-38 | s | IC HD14538BP |
| IC8 | 8-759-200-56 | s | IC TC4526BP |
| IC10 | 8-759-240-11 | s | IC TC4011BP |
| IC11 | 8-759-345-38 | s | IC HD14538BP |
| IC12 | 8-759-205-76 | s | IC TC504013BP |
| IC13 | 8-759-201-29 | s | IC TC9122P |
| IC14 | 8-759-240-40 | s | IC TC4040BP |
| IC15 | 8-759-345-38 | s | IC HD14538BP |
| IC16 | 8-759-910-83 | s | IC TL072ACP |
| IC17 | 8-759-000-49 | s | IC MC14066BCP |
| IC18 | 8-759-145-58 | s | IC RC4558P |

(CSV BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC20 | 8-759-345-38 | s | IC HD14538BP |
| IC21 | 8-759-240-11 | s | IC TC4011BP |
| IC22 | 8-759-240-11 | s | IC TC4011BP |
| IC23 | 8-759-240-11 | s | IC TC4011BP |
| IC24 | 8-743-977-00 | s | IC BX3977 |
| IC25 | 8-759-145-58 | s | IC RC4558P |
| IC26 | 8-759-240-11 | s | IC TC4011BP |
| IC28 | 8-759-345-38 | s | IC HD14538BP |
| IC29 | 8-759-345-38 | s | IC HD14538BP |
| IC401 | 8-759-131-11 | s | IC UPC311C |
| L1 | 1-409-339-00 | s | COIL, CHOKE |
| L4 | 1-409-339-00 | s | COIL, CHOKE |
| L5 | 1-409-339-00 | s | COIL, CHOKE |
| Q1 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q2 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q3 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q4 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q6 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q7 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q8 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q9 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q10 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q11 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q12 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q101 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q201 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q202 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q401 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| R78 | 1-247-885-00 | s | CARBON 180K 5% 1/4W |
| R103 | 1-247-174-00 | s | CARBON 62K 5% 1/4W |
| R211 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| RB201 | 1-245-033-81 | s | RESISTOR BLOCK 10Kx4 |
| RV3 | 1-237-521-21 | s | RES, VAR 100K |
| RV4 | 1-237-516-21 | s | RES, VAR 2K |
| RV5 | 1-237-521-21 | s | RES, VAR 100K |
| RV6 | 1-237-521-21 | s | RES, VAR 100K |
| RV7 | 1-237-518-21 | s | RES, VAR 10K |
| RV8 | 1-237-521-21 | s | RES, VAR 100K |
| RV9 | 1-237-520-21 | s | RES, VAR 50K |
| RV10 | 1-230-677-11 | s | RES, VAR 100K |
| RV11 | 1-237-521-21 | s | RES, VAR 100K |
| RV12 | 1-237-515-21 | s | RES, VAR 1K |
| RV18 | 1-237-521-21 | s | RES, VAR 100K |
| RV201 | 1-237-519-21 | s | RES, VAR 20K |
| RV202 | 1-237-519-21 | s | RES, VAR 20K |
| RV203 | 1-237-515-21 | s | RES, VAR 1K |
| RV204 | 1-237-515-21 | s | RES, VAR 1K |
| RV205 | 1-237-521-21 | s | RES, VAR 100K |
| RV206 | 1-237-519-21 | s | RES, VAR 20K |
| RY1 | 1-515-476-00 | s | RELAY |
| SW2 | 1-553-439-00 | s | SWITCH, TOGGLE |
| SW4 | 1-554-964-11 | s | SWITCH, ROTARY |
| SW5 | 1-554-964-11 | s | SWITCH, ROTARY |
| SW6 | 1-554-964-11 | s | SWITCH, ROTARY |
| SW7 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW101 | 1-553-441-00 | s | SWITCH, TOGGLE |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(CSV BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| SW202 | 1-553-925-00 | s | SWITCH, DIGITAL |
| SW203 | 1-553-439-00 | s | SWITCH, TOGGLE |
| SW204 | 1-553-439-00 | s | SWITCH, TOGGLE |
| SW205 | 1-553-439-00 | s | SWITCH, TOGGLE |

---
DRV BOARD
---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-100-B | o | COMPLETE PCB, DRV |
| C4 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C82 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C85 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| CN1 | 1-560-726-00 | o | CONNECTOR, 20P, MALE |
| CN2 | 1-560-729-00 | o | CONNECTOR, 34P, MALE |
| CN3 | 1-564-797-11 | o | PIN, CONNECTOR, 10P (WITH LOCK) |
| CN4 | 1-564-792-11 | o | PIN, CONNECTOR, 5P (WITH LOCK) |
| CN5 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN6 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN7 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN8 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN9 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| CN10 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN11 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN12 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN13 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN14 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN15 | 1-560-304-00 | o | CONNECTOR, IL 8P, MALE |
| D1 | 8-719-200-02 | s | DIODE 10E2 |
| D2 | 8-719-200-02 | s | DIODE 10E2 |
| D3 | 8-719-200-02 | s | DIODE 10E2 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-800-33 | s | DIODE TLG102A |
| D6 | 8-719-800-19 | s | DIODE TLR102A |
| D8 | 8-719-815-85 | s | DIODE 1S1585 |
| D9 | 8-719-815-85 | s | DIODE 1S1585 |
| D10 | 8-719-815-85 | s | DIODE 1S1585 |
| D11 | 8-719-815-85 | s | DIODE 1S1585 |
| D12 | 8-719-200-02 | s | DIODE 10E2 |
| D13 | 8-719-200-02 | s | DIODE 10E2 |
| D14 | 8-719-815-85 | s | DIODE 1S1585 |
| D15 | 8-719-815-85 | s | DIODE 1S1585 |
| D16 | 8-719-815-85 | s | DIODE 1S1585 |
| D17 | 8-719-815-85 | s | DIODE 1S1585 |
| D18 | 8-719-200-02 | s | DIODE 10E2 |
| D19 | 8-719-200-02 | s | DIODE 10E2 |
| D20 | 8-719-815-85 | s | DIODE 1S1585 |
| D21 | 8-719-815-85 | s | DIODE 1S1585 |
| D22 | 8-719-815-85 | s | DIODE 1S1585 |
| D23 | 8-719-815-85 | s | DIODE 1S1585 |
| D24 | 8-719-200-02 | s | DIODE 10E2 |
| D25 | 8-719-200-02 | s | DIODE 10E2 |
| D26 | 8-719-815-85 | s | DIODE 1S1585 |
| D27 | 8-719-815-85 | s | DIODE 1S1585 |
| D28 | 8-719-815-85 | s | DIODE 1S1585 |
| D29 | 8-719-815-85 | s | DIODE 1S1585 |
| D30 | 8-719-200-02 | s | DIODE 10E2 |
| D31 | 8-719-200-02 | s | DIODE 10E2 |
| IC1 | 8-759-120-03 | s | IC UPA2003C |
| IC2 | 8-759-914-00 | s | IC SN7400N |
| IC3 | 8-759-974-04 | s | IC HD7404P |
| IC4 | 8-759-974-04 | s | IC HD7404P |
| IC5 | 8-759-914-00 | s | IC SN7400N |
| IC6 | 8-759-941-07 | s | IC SN74107N |
| IC7 | 8-759-131-11 | s | IC UPC311C |
| IC8 | 8-759-120-03 | s | IC UPA2003C |
| IC9 | 8-759-133-90 | s | IC UPC339C |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

(DRV BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC10 | 8-759-120-03 | s | IC UPA2003C |
| IC11 | 8-759-901-07 | s | IC SN74LS107AN |
| IC12 | 8-759-974-14 | s | IC HD7414N |
| IC13 | 8-759-503-91 | s | IC TL082ACP |
| IC14 | 8-759-503-91 | s | IC TL082ACP |
| L1 | 1-409-339-00 | s | COIL, CHOKE |
| Q1 | 8-729-105-62 | s | TRANSISTOR 2SD560-L |
| Q2 | 8-729-385-82 | s | TRANSISTOR 2SB858-C |
| Q3 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C |
| Q6 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q7 | 8-729-385-82 | s | TRANSISTOR 2SB858-C |
| Q8 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C |
| Q9 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q10 | 8-729-385-82 | s | TRANSISTOR 2SB858-C |
| Q11 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C |
| Q12 | 8-729-385-82 | s | TRANSISTOR 2SB858-C |
| Q13 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C |
| Q14 | 8-729-383-73 | s | TRANSISTOR 2SC2873 |
| Q15 | 8-729-318-63 | s | TRANSISTOR 2SA1186 |
| Q16 | 8-729-385-82 | s | TRANSISTOR 2SB858-C |
| Q17 | 8-729-383-73 | s | TRANSISTOR 2SC2873:MMV800/810 |
| Q17 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C:MMV802 |
| Q18 | 8-729-318-63 | s | TRANSISTOR 2SA1186:MMV800/810 |
| Q18 | 8-729-383-73 | s | TRANSISTOR 2SC2873:MMV802 |
| Q19 | 8-729-318-63 | s | TRANSISTOR 2SA1186:MMV802 |
| Q20 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C |
| Q21 | 8-729-385-82 | s | TRANSISTOR 2SB858-C |
| Q22 | 8-729-383-73 | s | TRANSISTOR 2SC2873 |
| Q23 | 8-729-318-63 | s | TRANSISTOR 2SA1186 |
| Q24 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C |
| Q25 | 8-729-385-82 | s | TRANSISTOR 2SB858-C |
| Q26 | 8-729-383-73 | s | TRANSISTOR 2SC2873:MMV802 |
| Q27 | 8-729-318-63 | s | TRANSISTOR 2SA1186:MMV802 |
| Q28 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C |
| Q29 | 8-729-385-82 | s | TRANSISTOR 2SB858-C |
| Q30 | 8-729-383-73 | s | TRANSISTOR 2SC2873:MMV800/810 |
| Q31 | 8-729-318-63 | s | TRANSISTOR 2SA1186:MMV800/810 |
| Q31 | 8-729-383-73 | s | TRANSISTOR 2SC2873:MMV802 |
| Q32 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C:MMV800/810 |
| Q32 | 8-729-318-63 | s | TRANSISTOR 2SA1186:MMV802 |
| Q33 | 8-729-385-82 | s | TRANSISTOR 2SB858-C |
| Q34 | 8-729-383-73 | s | TRANSISTOR 2SC2873 |
| Q35 | 8-729-318-63 | s | TRANSISTOR 2SA1186 |
| Q50 | 8-729-900-37 | s | TRANSISTOR DTC124EF |
| R61 | 1-215-889-00 | s | METAL 330 5% 2W |
| R62 | 1-215-891-11 | s | METAL 680 5% 2W |
| R68 | 1-215-889-00 | s | METAL 330 5% 2W |
| R69 | 1-215-891-11 | s | METAL 680 5% 2W |
| R82 | 1-215-888-00 | s | METAL 220 5% 2W |
| R84 | 1-217-152-00 | s | METAL 0.33 |
| R85 | 1-217-152-00 | s | METAL 0.33 |
| R86 | 1-215-889-00 | s | METAL 330 5% 2W |
| R88 | 1-217-152-00 | s | METAL 0.33 |
| R89 | 1-217-152-00 | s | METAL 0.33 |
| R91 | 1-215-888-00 | s | METAL 220 5% 2W |
| R93 | 1-217-152-00 | s | METAL 0.33 |
| R94 | 1-217-152-00 | s | METAL 0.33 |
| R95 | 1-215-889-00 | s | METAL 330 5% 2W |

(DRV BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R97 | 1-217-152-00 | s | METAL 0.33 |
| R98 | 1-217-152-00 | s | METAL 0.33 |
| R102 | 1-217-152-00 | s | METAL 0.33 |
| R103 | 1-217-152-00 | s | METAL 0.33 |
| R107 | 1-217-152-00 | s | METAL 0.33 |
| R108 | 1-217-152-00 | s | METAL 0.33 |
| R116 | 1-217-152-00 | s | METAL 0.33 |
| R117 | 1-217-152-00 | s | METAL 0.33 |
| R121 | 1-217-152-00 | s | METAL 0.33 |
| R122 | 1-217-152-00 | s | METAL 0.33 |
| R126 | 1-217-152-00 | s | METAL 0.33 |
| R127 | 1-217-152-00 | s | METAL 0.33 |
| R131 | 1-217-152-00 | s | METAL 0.33 |
| R132 | 1-217-152-00 | s | METAL 0.33 |
| R140 | 1-217-152-00 | s | METAL 0.33 |
| R141 | 1-217-152-00 | s | METAL 0.33 |
| R145 | 1-217-152-00 | s | METAL 0.33 |
| R146 | 1-217-152-00 | s | METAL 0.33 |
| R149 | 1-215-880-00 | s | METAL 10 5% 2W |
| R150 | 1-216-379-11 | s | METAL 6.8 5% 2W |
| R200 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| RV1 | 1-237-514-21 | s | RES, VAR 500 |
| RV2 | 1-237-514-21 | s | RES, VAR 500 |
| T1 | 1-427-265-00 | s | TRANSFORMER, OUTPUT |
| T2 | 1-427-265-00 | s | TRANSFORMER, OUTPUT |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

---
DSV BOARD
---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-072-B | o | COMPLETE PCB, DSV:MMV800/810 |
| | A-8615-120-B | o | COMPLETE PCB, DSV:MMV802 |
| C2 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C4 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C6 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C10 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C11 | 1-131-351-00 | o | TANTALUM 4.7uF 10% 35V |
| C12 | 1-131-351-00 | o | TANTALUM 4.7uF 10% 35V |
| C15 | 1-126-964-11 | s | ELECT 10uF 20% 50V |
| C17 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C19 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C20 | 1-126-233-11 | s | ELECT 22uF 20% 50V |
| C26 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C31 | 1-131-344-00 | s | TANTALUM 0.33uF 10% 35V |
| C36 | 1-131-350-00 | s | TANTALUM 3.3uF 10% 35V |
| C56 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-109-75 | s | DIODE RD4.3ES-B2 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-815-85 | s | DIODE 1S1585 |
| D6 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-820-12 | s | LED TLR214, RED |
| D8 | 1-807-049-21 | s | DIODE LN35GP |
| D9 | 8-719-815-85 | s | DIODE 1S1585 |
| D10 | 8-719-815-85 | s | DIODE 1S1585 |
| D11 | 8-719-815-85 | s | DIODE 1S1585 |
| D12 | 8-719-815-85 | s | DIODE 1S1585 |
| D13 | 8-719-815-85 | s | DIODE 1S1585:MMV802 |
| D14 | 8-719-815-85 | s | DIODE 1S1585:MMV802 |
| D101 | 8-719-815-85 | s | DIODE 1S1585 |
| D102 | 8-719-815-85 | s | DIODE 1S1585 |
| D103 | 8-719-815-85 | s | DIODE 1S1585 |
| D104 | 8-719-815-85 | s | DIODE 1S1585 |
| IC1 | 8-751-941-03 | s | IC CX194B-3 |
| IC2 | 8-759-974-06 | s | IC SN7406N |
| IC3 | 8-741-104-30 | s | IC BX1043 |
| IC4 | 8-743-983-00 | s | IC BX3983 |
| IC5 | 8-759-345-38 | s | IC HD14538BP |
| IC6 | 8-759-345-38 | s | IC HD14538BP |
| IC7 | 8-759-345-38 | s | IC HD14538BP |
| IC8 | 8-759-345-38 | s | IC HD14538BP |
| IC9 | 8-759-240-44 | s | IC TC4044BP |
| IC10 | 8-759-345-38 | s | IC HD14538BP |
| IC11 | 8-759-974-04 | s | IC HD7404P |
| IC12 | 8-759-914-00 | s | IC SN7400N |
| IC13 | 8-759-900-02 | s | IC SN74LS02N:MMV802 |
| IC101 | 8-759-345-38 | s | IC HD14538BP |
| IC102 | 8-759-345-38 | s | IC HD14538BP |
| IC103 | 8-759-240-44 | s | IC TC4044BP |
| IC104 | 8-759-900-00 | s | IC SN74LS00N |
| IC105 | 8-759-900-05 | s | IC SN74LS05N |
| IC106 | 8-759-345-38 | s | IC HD14538BP |
| IC107 | 8-759-345-38 | s | IC HD14538BP |
| IC108 | 8-759-345-38 | s | IC HD14538BP |
| IC109 | 8-759-345-38 | s | IC HD14538BP |
| L3 | 1-409-339-00 | s | COIL, CHOKE |

(DSV BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| L4 | 1-409-339-00 | s | COIL, CHOKE |
| Q1 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q2 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q3 | 8-729-173-38 | s | TRANSISTOR 2SA733-K |
| Q4 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q5 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q6 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q7 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q8 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q9 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E:MMV802 |
| Q101 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q102 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q103 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| R1 | 1-215-886-11 | s | METAL 100 5% 2W |
| R18 | 1-215-886-11 | s | METAL 100 5% 2W |
| R101 | 1-247-883-00 | s | CARBON 150K 5% 1/4W:MMV802 |
| R103 | 1-247-883-00 | s | CARBON 150K 5% 1/4W:MMV802 |
| R111 | 1-247-883-00 | s | CARBON 150K 5% 1/4W:MMV802 |
| R113 | 1-247-883-00 | s | CARBON 150K 5% 1/4W:MMV802 |
| R118 | 1-247-883-00 | s | CARBON 150K 5% 1/4W:MMV802 |
| R120 | 1-247-883-00 | s | CARBON 150K 5% 1/4W:MMV802 |
| RV1 | 1-237-520-21 | s | RES, VAR 50K |
| RV2 | 1-237-520-21 | s | RES, VAR 50K |
| RV3 | 1-237-520-21 | s | RES, VAR 50K |
| RV4 | 1-237-516-21 | s | RES, VAR 2K |
| RV5 | 1-237-521-21 | s | RES, VAR 100K |
| RV6 | 1-237-521-21 | s | RES, VAR 100K |
| RV7 | 1-237-521-21 | s | RES, VAR 100K |
| RV8 | 1-237-521-21 | s | RES, VAR 100K |
| RV9 | 1-237-521-21 | s | RES, VAR 100K |
| RV101 | 1-237-520-21 | s | RES, VAR 50K |
| RV102 | 1-237-520-21 | s | RES, VAR 50K |
| RV103 | 1-237-520-21 | s | RES, VAR 50K |
| RV104 | 1-237-520-21 | s | RES, VAR 50K |
| RV105 | 1-237-520-21 | s | RES, VAR 50K |
| RV106 | 1-237-520-21 | s | RES, VAR 50K |
| SW1 | 1-553-439-00 | s | SWITCH, TOGGLE |
| SW2 | 1-553-439-00 | s | SWITCH, TOGGLE |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

EQ-MM01(RFE)BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-226-A | o | COMPLETE PCB, EQ-MM01:MMV800 |
| | A-8615-241-A | o | COMPLETE PCB, EQ-MM01:MMV810 |
| | A-8615-254-A | o | COMPLETE PCB, EQ-MM01:MMV802 |
| C48 | 1-164-031-11 | s | CERAMIC 33PF 5% 50V |
| C58 | 1-164-031-11 | s | CERAMIC 33PF 5% 50V |
| C64 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C66 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C74 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C76 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C001 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C002 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C003 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C004 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C005 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C006 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C007 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C008 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C009 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C010 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C011 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C012 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C013 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C014 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C015 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C016 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C017 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C018 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C019 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C020 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V:MMV800/810 |
| C020 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V:MMV802 |
| C021 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C022 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C023 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C024 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C025 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C026 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C027 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C028 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C029 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C030 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C031 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C032 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C033 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C034 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C035 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C036 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C037 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V:MMV800/810 |
| C037 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V:MMV802 |
| C038 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C039 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C040 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C041 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C042 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C043 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C044 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C045 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C046 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C047 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |

(EQ-MM01(RFE)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C049 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C050 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C051 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C052 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C053 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C054 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C055 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C056 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C057 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C059 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C060 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C061 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C062 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C063 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C065 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C067 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C069 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C070 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C071 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C072 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C073 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C075 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C077 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C079 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C080 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C081 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C082 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C083 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C085 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C086 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C087 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C088 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C089 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C090 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C092 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C093 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C094 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C095 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C097 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C098 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C099 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C101 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C102 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C103 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C104 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C105 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C106 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C108 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C109 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C110 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C111 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C113 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C114 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C115 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C116 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C117 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C118 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C119 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C120 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(EQ-MM01(RFE)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C121 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C122 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C123 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C124 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C125 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C126 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C127 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C128 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C129 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C130 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C131 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C132 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C133 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C134 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C135 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C136 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C137 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C138 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C139 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C140 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C141 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C142 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C143 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C144 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C145 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C146 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C147 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C148 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C149 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C150 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C151 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C152 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C153 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C154 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C155 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C156 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C172 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C173 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C174 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C175 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C176 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C177 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C178 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C179 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C180 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C181 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C182 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C183 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C184 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C185 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C186 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C188 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C190 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C191 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C192 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C193 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C194 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C195 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C196 | 1-124-455-00 | s | ELECT 100uF 20% 16V |

(EQ-MM01(RFE)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C197 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C198 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C199 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C200 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C201 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C202 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C203 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C204 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C205 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| CN1 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN2 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| D001 | 8-719-912-20 | s | DIODE 1SS120 |
| D002 | 8-719-912-20 | s | DIODE 1SS120 |
| D003 | 8-719-912-20 | s | DIODE 1SS120 |
| D004 | 8-719-912-20 | s | DIODE 1SS120 |
| D005 | 8-719-912-20 | s | DIODE 1SS120 |
| D006 | 8-719-912-20 | s | DIODE 1SS120 |
| D007 | 8-719-912-20 | s | DIODE 1SS120 |
| D010 | 8-719-912-20 | s | DIODE 1SS120 |
| DL1 | 1-402-807-11 | s | DELAY LINE |
| DL2 | 1-402-807-11 | s | DELAY LINE |
| FL1 | 1-402-939-11 | s | FILTER, NOISE |
| FL2 | 1-402-939-11 | s | FILTER, NOISE |
| FL3 | 1-424-338-11 | s | FILTER, NOISE |
| FL4 | 1-424-338-11 | s | FILTER, NOISE |
| FL5 | 1-424-338-11 | s | FILTER, NOISE |
| FL6 | 1-424-338-11 | s | FILTER, NOISE |
| IC01 | 8-759-916-22 | s | IC SN74HC21AN |
| IC02 | 8-759-916-22 | s | IC SN74HC21AN |
| IC03 | 8-759-232-07 | s | IC TC74HC04AP |
| IC04 | 8-759-140-53 | s | IC UPD4053BC |
| IC05 | 8-759-014-95 | s | IC MC1495L |
| IC06 | 8-759-014-95 | s | IC MC1495L |
| IC07 | 8-759-014-95 | s | IC MC1495L |
| IC08 | 8-759-014-95 | s | IC MC1495L |
| IC09 | 8-759-014-95 | s | IC MC1495L |
| IC10 | 8-759-014-95 | s | IC MC1495L |
| IC11 | 8-759-112-07 | s | IC UPC78N08H |
| IC12 | 1-809-902-11 | s | IC UPC79N08H |
| IC13 | 8-759-711-23 | s | IC NJM2234L |
| IC17 | 8-759-140-53 | s | IC UPD4053BC |
| IC18 | 8-759-701-59 | s | IC NJM78M09FA |
| IC19 | 8-759-701-87 | s | IC NJM7909FA |
| IC20 | 8-759-701-75 | s | IC NJM7805FA |
| IC21 | 8-759-701-84 | s | IC NJM7905FA |
| L033 | 1-412-012-11 | s | INDUCTOR 100UH |
| L034 | 1-412-012-11 | s | INDUCTOR 100UH |
| Q001 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q002 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q003 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q004 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q005 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q006 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q007 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q008 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q009 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(EQ-MM01(RFE)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q010 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q011 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q012 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q013 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q014 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q015 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q016 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q017 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q018 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q019 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q020 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q021 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q022 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q023 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q024 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q025 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q026 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q027 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q028 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q029 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q030 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q031 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q032 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q033 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q034 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q035 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q036 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q037 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q038 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q039 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q040 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q041 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q042 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q043 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q044 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q045 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q046 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q047 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q048 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q049 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q050 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q051 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q052 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q053 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q054 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q055 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q056 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q057 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q058 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q059 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q060 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q061 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q062 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q078 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q079 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q080 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q081 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q082 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q083 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

(EQ-MM01(RFE)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q084 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q085 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q086 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| R93 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R97 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R001 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R002 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R003 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R004 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R005 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R006 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R007 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R008 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R009 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R010 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R011 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R012 | 1-249-416-11 | s | CARBON 820 5% 1/4W |
| R013 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R014 | 1-249-417-11 | s | CARBON 1K 5% 1/4W:MMV800/810 |
| R014 | 1-249-413-11 | s | CARBON 470 5% 1/4W:MMV802 |
| R015 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R016 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R017 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R018 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R019 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R020 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R021 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R023 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R024 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R025 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R026 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R027 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R028 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R029 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R030 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R031 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R032 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R033 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R034 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R036 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R037 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R039 | 1-247-816-11 | s | CARBON 240 5% 1/4W |
| R040 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W:MMV800/810 |
| R040 | 1-247-838-11 | s | CARBON 2K 5% 1/4W:MMV802 |
| R041 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R042 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R043 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R044 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R045 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R046 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R047 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R048 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R049 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R050 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R051 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R052 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R053 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R054 | 1-249-414-11 | s | CARBON 560 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(EQ-MM01(RFE)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R055 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R056 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R057 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R058 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R060 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R061 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R062 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R063 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R064 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R065 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R066 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R067 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R068 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R069 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R070 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R071 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R072 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R073 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R075 | 1-247-816-11 | s | CARBON 240 5% 1/4W |
| R076 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R077 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R078 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R079 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R080 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R081 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R082 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R083 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R084 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R085 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R086 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R087 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R088 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R089 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R090 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R091 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R092 | 1-249-410-11 | s | CARBON 270 5% 1/4W |
| R094 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R095 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R096 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R098 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R099 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R100 | 1-249-406-11 | s | CARBON 120 5% 1/4W |
| R101 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R102 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R103 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R104 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R105 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R106 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R107 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R108 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R109 | 1-249-410-11 | s | CARBON 270 5% 1/4W |
| R110 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R111 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R112 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R113 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R114 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R115 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R116 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R117 | 1-249-406-11 | s | CARBON 120 5% 1/4W |

(EQ-MM01(RFE)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R118 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R119 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R120 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R121 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R122 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R123 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R124 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R125 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R126 | 1-249-410-11 | s | CARBON 270 5% 1/4W |
| R127 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R128 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R129 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R130 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R132 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R133 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R134 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R135 | 1-249-410-11 | s | CARBON 270 5% 1/4W |
| R137 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R138 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R139 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R140 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R141 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R142 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R143 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R144 | 1-249-410-11 | s | CARBON 270 5% 1/4W |
| R145 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R146 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R147 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R148 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R150 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R151 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R152 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R153 | 1-249-410-11 | s | CARBON 270 5% 1/4W |
| R155 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R156 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R157 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R158 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R159 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R160 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R161 | 1-249-428-11 | s | CARBON 8.2K 5% 1/4W |
| R162 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R163 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R164 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R165 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R166 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R167 | 1-249-434-11 | s | CARBON 27K 5% 1/4W |
| R168 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R169 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R170 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R171 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R172 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R173 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R175 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R176 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R177 | 1-215-401-11 | s | METAL 150 1% 1/6W |
| R178 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R179 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R180 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R181 | 1-249-434-11 | s | CARBON 27K 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(EQ-MM01(RFE)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R182 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R183 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R184 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R185 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R186 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R187 | 1-249-428-11 | s | CARBON 8.2K 5% 1/4W |
| R188 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R189 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R190 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R191 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R192 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R193 | 1-249-434-11 | s | CARBON 27K 5% 1/4W |
| R194 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R195 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R196 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R197 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R198 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R199 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R201 | 1-215-401-11 | s | METAL 150 1% 1/6W |
| R202 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R203 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R204 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R205 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R206 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R207 | 1-249-434-11 | s | CARBON 27K 5% 1/4W |
| R208 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R209 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R210 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R211 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R212 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R213 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R214 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R215 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R216 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R217 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R218 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R219 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R221 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R222 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R223 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R224 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R225 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R226 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R227 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R229 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R230 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R231 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R232 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R233 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R234 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R235 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R237 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R238 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R239 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R240 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R241 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R242 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R243 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R247 | 1-249-405-11 | s | CARBON 100 5% 1/4W |

(EQ-MM01(RFE)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R248 | 1-249-424-11 | s | CARBON 3.9K 5% 1/4W |
| R249 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R250 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R251 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R252 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R253 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R254 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R255 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R256 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R257 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R258 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R259 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R260 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R262 | 1-215-392-00 | s | METAL 62 1% 1/4W:MMV802 |
| R263 | 1-215-392-00 | s | METAL 62 1% 1/4W:MMV802 |
| R264 | 1-215-392-00 | s | METAL 62 1% 1/4W:MMV802 |
| R267 | 1-215-392-00 | s | METAL 62 1% 1/4W:MMV802 |
| R268 | 1-215-392-00 | s | METAL 62 1% 1/4W:MMV802 |
| R269 | 1-215-392-00 | s | METAL 62 1% 1/4W:MMV802 |
| R271 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R272 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R273 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R311 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R312 | 1-249-430-11 | s | CARBON 12K 5% 1/4W |
| R315 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R318 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R319 | 1-249-430-11 | s | CARBON 12K 5% 1/4W |
| R323 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R325 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R326 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R327 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R328 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R329 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R330 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R331 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R332 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R334 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R335 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R336 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R337 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R338 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R339 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R340 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R341 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R342 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R343 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R344 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R345 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R346 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R347 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| RV01 | 1-237-514-21 | s | RES, VAR 500:MMV800/810 |
| RV01 | 1-237-513-11 | s | RES, VAR 200:MMV802 |
| RV08 | 1-241-569-11 | s | RES, VAR, 2K |
| RV10 | 1-241-569-11 | s | RES, VAR, 2K |
| RV12 | 1-241-569-11 | s | RES, VAR, 2K |
| RV13 | 1-241-569-11 | s | RES, VAR, 2K |
| RV16 | 1-237-514-21 | s | RES, VAR 500 |
| S001 | 1-570-373-12 | s | SWITCH, SLIDE |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

(EQ-MM01(RFE)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| S003 | 1-570-373-12 | s | SWITCH, SLIDE |
| S004 | 1-570-373-12 | s | SWITCH, SLIDE |
| S005 | 1-570-373-12 | s | SWITCH, SLIDE |
| S006 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S007 | 1-571-146-11 | s | SWITCH, ROTARY |
| S008 | 1-571-146-11 | s | SWITCH, ROTARY |

---

HM-2 BOARD

---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| CN1 | 1-560-300-11 | o | POST HEADER, 3P |
| CN2 | 1-560-301-11 | o | POST HEADER, 4P |
| Q1 | 8-729-900-37 | s | TRANSISTOR DTC124EF |
| Q2 | 8-729-900-37 | s | TRANSISTOR DTC124EF |
| Q3 | 8-729-900-37 | s | TRANSISTOR DTC124EF |

---

KBD BOARD(1-613-810-11)

---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-222-A | o | COMPLETE PCB, KBD |
| 1pc | 1-554-045-12 | s | SWITCH, PUSH |
| C13 | 1-131-348-00 | s | TANTALUM 1.5uF 10% 35V |
| C20 | 1-126-934-11 | s | ELECT 220uF 20% 16V |
| C21 | 1-126-934-11 | s | ELECT 220uF 20% 16V |
| CN1 | 1-560-732-00 | o | HEADER, PIN 60P |
| CN2 | 1-560-313-00 | o | CONNECTOR, IL 8P, MALE |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-815-85 | s | DIODE 1S1585 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D8 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D9 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D10 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D11 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D12 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D13 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D14 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| IC1 | 8-759-901-38 | s | IC SN74LS138N |
| IC2 | 8-759-901-38 | s | IC SN74LS138N |
| IC3 | 8-759-901-38 | s | IC SN74LS138N |
| IC4 | 8-759-900-29 | s | IC SN74247N |
| IC5 | 8-759-900-29 | s | IC SN74247N |
| IC6 | 8-759-115-55 | s | IC UPC1555C |
| IC7 | 8-759-900-04 | s | IC SN74LS04N |
| IC8 | 8-759-900-04 | s | IC SN74LS04N |
| IC9 | 8-759-900-28 | s | IC SN74LS28N |
| IC10 | 8-759-900-28 | s | IC SN74LS28N |
| IC11 | 8-759-900-32 | s | IC SN74LS32N |
| IC12 | 8-759-900-32 | s | IC SN74LS32N |
| LD1 | 8-719-976-52 | s | IC 5082-7650 |
| LD2 | 8-719-976-52 | s | IC 5082-7650 |
| LD3 | 8-719-976-52 | s | IC 5082-7650 |
| LD4 | 8-719-976-52 | s | IC 5082-7650 |
| LD5 | 8-719-976-52 | s | IC 5082-7650 |
| LD6 | 8-719-976-52 | s | IC 5082-7650 |
| LD7 | 8-719-976-52 | s | IC 5082-7650 |
| LD8 | 8-719-976-52 | s | IC 5082-7650 |
| LD9 | 8-719-976-52 | s | IC 5082-7650 |
| LD10 | 8-719-976-52 | s | IC 5082-7650 |
| LD11 | 8-719-976-52 | s | IC 5082-7650 |
| LD12 | 8-719-976-52 | s | IC 5082-7650 |
| Q1 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q2 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q3 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q4 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q5 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q6 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q7 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q8 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q9 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q10 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q11 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q12 | 8-729-374-02 | s | TRANSISTOR 2SB740 |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(KBD BOARD(1-613-810-11))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R58 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| SW1 | 1-554-041-11 | s | SWITCH WITH LED, TACTILE |
| SW2 | 1-554-041-11 | s | SWITCH WITH LED, TACTILE |
| SW3 | 1-554-041-11 | s | SWITCH WITH LED, TACTILE |
| SW5 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW6 | 1-554-043-11 | s | SWITCH, PUSH |
| SW7 | 1-554-043-11 | s | SWITCH, PUSH |
| SW8 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW10 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW11 | 1-554-040-11 | s | SWITCH, PUSH |
| SW12 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW13 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW15 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |

KBD BOARD(1-647-380-12)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-221-A | o | MOUNTED PCB, KBD |
| C13 | 1-131-348-00 | s | TANTALUM 1.5uF 10% 35V |
| C14 | 1-104-665-11 | s | ELECT 100uF 20% 16V |
| C20 | 1-124-360-00 | s | ELECT 1000uF 20% 16V |
| C21 | 1-124-360-00 | s | ELECT 1000uF 20% 16V |
| CN1 | 1-560-732-00 | o | HEADER, PIN 60P |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-815-85 | s | DIODE 1S1585 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D8 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D9 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D10 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D11 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D12 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D13 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D14 | 8-719-905-55 | s | LED EAA5504S, AMBER |
| D15 | 8-719-815-85 | s | DIODE 1S1585 |
| IC1 | 8-759-901-38 | s | IC SN74LS138N |
| IC2 | 8-759-901-38 | s | IC SN74LS138N |
| IC3 | 8-759-901-38 | s | IC SN74LS138N |
| IC4 | 8-759-372-48 | s | IC HD74LS248P |
| IC5 | 8-759-372-48 | s | IC HD74LS248P |
| IC6 | 8-759-115-55 | s | IC UPC1555C |
| IC7 | 8-759-900-04 | s | IC SN74LS04N |
| IC8 | 8-759-900-04 | s | IC SN74LS04N |
| IC9 | 8-759-005-24 | s | IC SN74LS28N |
| IC10 | 8-759-005-24 | s | IC SN74LS28N |
| IC11 | 8-759-900-32 | s | IC SN74LS32N |
| IC12 | 8-759-900-32 | s | IC SN74LS32N |
| IC13 | 8-759-203-90 | s | IC TD62504P |
| IC14 | 8-759-203-90 | s | IC TD62504P |
| IC15 | 8-759-901-38 | s | IC SN74LS138N |
| LD1 | 8-719-976-52 | s | IC 5082-7650 |
| LD2 | 8-719-976-52 | s | IC 5082-7650 |
| LD3 | 8-719-976-52 | s | IC 5082-7650 |
| LD4 | 8-719-976-52 | s | IC 5082-7650 |
| LD5 | 8-719-976-52 | s | IC 5082-7650 |
| LD6 | 8-719-976-52 | s | IC 5082-7650 |
| LD7 | 8-719-976-52 | s | IC 5082-7650 |
| LD8 | 8-719-976-52 | s | IC 5082-7650 |
| LD9 | 8-719-976-52 | s | IC 5082-7650 |
| LD10 | 8-719-976-52 | s | IC 5082-7650 |
| LD11 | 8-719-976-52 | s | IC 5082-7650 |
| LD12 | 8-719-976-52 | s | IC 5082-7650 |
| Q1 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q2 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q3 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q4 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q5 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q6 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q7 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q8 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q9 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q10 | 8-729-374-02 | s | TRANSISTOR 2SB740 |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(KBD BOARD(1-647-380-12))

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q11 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q12 | 8-729-374-02 | s | TRANSISTOR 2SB740 |
| Q13 | 8-729-900-39 | s | TRANSISTOR TDA124EF |
| Q14 | 8-729-900-37 | s | TRANSISTOR TDC124EF |
| R58 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| SW1 | 1-554-041-11 | s | SWITCH WITH LED, TACTILE |
| SW2 | 1-554-041-11 | s | SWITCH WITH LED, TACTILE |
| SW3 | 1-554-041-11 | s | SWITCH WITH LED, TACTILE |
| SW4 | 1-554-045-11 | s | SWITCH, PUSH |
| SW5 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW6 | 1-554-043-11 | s | SWITCH, PUSH |
| SW7 | 1-554-043-11 | s | SWITCH, PUSH |
| SW8 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW9 | 1-554-045-11 | s | SWITCH, PUSH |
| SW10 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW11 | 1-554-040-11 | s | SWITCH, PUSH |
| SW12 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW13 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW14 | 1-554-045-11 | s | SWITCH, PUSH |
| SW15 | 1-554-039-11 | s | SWITCH WITH LED, PUSH |
| SW16 | 1-570-212-91 | s | SWITCH, PUSH |
| SW17 | 1-570-212-81 | s | SWITCH, PUSH |
| SW18 | 1-570-212-71 | s | SWITCH, PUSH |
| SW19 | 1-570-212-61 | s | SWITCH, PUSH |
| SW20 | 1-570-212-51 | s | SWITCH, PUSH |
| SW21 | 1-570-212-41 | s | SWITCH, PUSH |
| SW22 | 1-570-212-31 | s | SWITCH, PUSH |
| SW23 | 1-570-212-21 | s | SWITCH, PUSH |
| SW25 | 1-572-823-31 | s | SWITCH |
| SW26 | 1-570-807-31 | s | SWITCH, PUSH |
| SW27 | 1-570-214-21 | s | SWITCH, PUSH |

---
LED-1 BOARD
---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-013-B | o | MOUNTED PCB, LED-1 |
| D1 | 1-809-305-11 | s | DIODE EPY5535S |
| D2 | 1-809-305-11 | s | DIODE EPY5535S |
| D3 | 1-809-305-11 | s | DIODE EPY5535S |
| D4 | 1-809-305-11 | s | DIODE EPY5535S |
| D5 | 1-809-305-11 | s | DIODE EPY5535S |
| D6 | 1-809-305-11 | s | DIODE EPY5535S |
| D7 | 1-809-305-11 | s | DIODE EPY5535S |
| D8 | 1-809-305-11 | s | DIODE EPY5535S |
| D9 | 1-809-305-11 | s | DIODE EPY5535S |
| D10 | 1-809-305-11 | s | DIODE EPY5535S |
| D11 | 1-809-305-11 | s | DIODE EPY5535S |
| D12 | 1-809-305-11 | s | DIODE EPY5535S |
| D13 | 1-809-305-11 | s | DIODE EPY5535S |
| D14 | 1-809-305-11 | s | DIODE EPY5535S |
| D15 | 1-809-305-11 | s | DIODE EPY5535S |
| D16 | 1-809-305-11 | s | DIODE EPY5535S |

---
LED-2 BOARD
---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-014-B | o | MOUNTED PCB, LED-2 |
| D1 | 1-809-305-11 | s | DIODE EPY5535S |
| D2 | 1-809-305-11 | s | DIODE EPY5535S |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

## MB-MM01(MBD)BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C1 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| CN1 | 1-560-726-00 | o | CONNECTOR, 20P, MALE |
| CN2 | 1-560-724-00 | o | CONNECTOR, 10P, MALE |
| CN3 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN4 | 1-560-729-00 | o | CONNECTOR, 34P, MALE |
| CN5 | 1-560-729-00 | o | CONNECTOR, 34P, MALE |
| CN6 | 1-560-302-00 | o | CONNECTOR, IL 5P, MALE |
| CN7 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN8 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN9 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN10 | 1-560-727-00 | o | CONNECTOR, 26P, MALE |
| CN11 | 1-560-726-00 | o | CONNECTOR, 20P, MALE |
| CN12 | 1-560-299-00 | o | CONNECTOR, IL 2P, MALE |
| CN13 | 1-560-724-00 | o | CONNECTOR, 10P, MALE |
| CN14 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN15 | 1-560-725-00 | o | CONNECTOR, 16P, MALE |
| CN16 | 1-560-725-00 | o | CONNECTOR, 16P, MALE |
| CN101 | 1-564-792-11 | o | PIN, CONNECTOR, 5P (WITH LOCK) |
| CN102 | 1-508-776-00 | o | PIN, CONNECTOR, 3P (WITH LOCK) |
| CN103 | 1-560-259-00 | o | PIN, CONNECTOR, 6P (WITH LOCK) |
| CN104 | 1-564-799-11 | o | PIN, CONNECTOR, 12P (WITH LOCK) |
| CN105 | 1-508-775-00 | o | PIN, CONNECTOR, 2P (WITH LOCK) |
| CN201 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| CN202 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| CN203 | 1-560-306-00 | o | CONNECTOR, IL 12P, MALE |
| CN204 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN205 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN206 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN207 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| CN208 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN209 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN210 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| CN211 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| CN212 | 1-560-299-00 | o | CONNECTOR, IL 2P, MALE |
| CN301 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN302 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN303 | 1-560-299-00 | o | CONNECTOR, IL 2P, MALE |
| CN303 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN304 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| FB1 | 1-543-224-11 | s | FILTER, BEAD |
| FB2 | 1-543-224-11 | s | FILTER, BEAD |
| JP1 | 1-561-838-11 | o | TERMINAL BOARD |

## MHJ BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| CN1 | 1-560-312-11 | o | POST HEADER, 6P |

## MS-SW BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-010-B | o | MOUNTED PCB, MS-SW |
| SW1 | 1-570-104-11 | s | SWITCH, PUSH (2 KEY) |
| CN1 | 1-560-300-11 | o | POST HEADER, 3P |
| CN2 | 1-560-300-11 | o | POST HEADER, 3P |

## NA-SW BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-011-B | o | MOUNTED PCB, NA-SW |
| CN1 | 1-560-306-11 | o | POST HEADER, 12P |
| CN2 | 1-560-299-11 | o | POST HEADER, 2P |
| CN3 | 1-560-300-11 | o | POST HEADER, 3P |
| SW1 | 1-570-104-11 | s | SWITCH, PUSH (2 KEY) |

## PFJ BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-018-B | o | MOUNTED PCB, PFJ |
| CN1 | 1-560-300-11 | o | POST HEADER, 3P |
| CN2 | 1-560-300-11 | o | POST HEADER, 3P |

## PJ-1 BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-005-B | o | MOUNTED PCB, PJ-1 |
| CN1 | 1-560-305-11 | o | POST HEADER, 10P |
| CN2 | 1-560-300-11 | o | POST HEADER, 3P |
| CN3 | 1-560-300-11 | o | POST HEADER, 3P |
| CN4 | 1-560-300-11 | o | POST HEADER, 3P |
| CN5 | 1-560-299-11 | o | POST HEADER, 2P |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

## PSS BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-006-B | o | MOUNTED PCB, PSS |
| CN1 | 1-560-309-00 | o | CONNECTOR, IL 3P, MALE |
| D1 | 1-807-068-11 | s | PHOTO-INTERRUPTER GP1A07 |

## PS-SW BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-012-B | o | MOUNTED PCB, PS-SW |
| CN1 | 1-560-306-11 | o | POST HEADER, 12P |
| CN4 | 1-560-299-11 | o | POST HEADER, 2P |
| SW1 | 1-570-104-11 | s | SWITCH, PUSH (2 KEY) |

## RA-MM01(RA)BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-209-A | o | MOUNTED PCB, RA-MM01 |
| C101 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C102 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C103 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C104 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C105 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C106 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C107 | 1-164-035-11 | s | CERAMIC 47PF 5% 50V |
| C108 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C109 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C110 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C111 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C112 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C113 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C114 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C115 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C116 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C117 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C118 | 1-164-035-11 | s | CERAMIC 47PF 5% 50V |
| C119 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C120 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C121 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C122 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C123 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C124 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C125 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C126 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C127 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C128 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C129 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C201 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C202 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C203 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C204 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C205 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C206 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C207 | 1-164-035-11 | s | CERAMIC 47PF 5% 50V |
| C208 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C209 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C210 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C211 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C212 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C213 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C214 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C215 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C216 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C217 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C218 | 1-164-035-11 | s | CERAMIC 47PF 5% 50V |
| C219 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C220 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C221 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C222 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C223 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C224 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C225 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C226 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C227 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C228 | 1-124-589-11 | s | ELECT 47uF 20% 16V |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(RA-MM01(RA)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C229 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| CN101 | 1-560-304-00 | o | CONNECTOR, IL 8P, MALE |
| CN102 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN103 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN104 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| CN105 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN201 | 1-560-304-00 | o | CONNECTOR, IL 8P, MALE |
| CN202 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN203 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN204 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| CN205 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| D101 | 8-719-912-20 | s | DIODE 1SS120 |
| D102 | 8-719-912-20 | s | DIODE 1SS120 |
| D201 | 8-719-912-20 | s | DIODE 1SS120 |
| D202 | 8-719-912-20 | s | DIODE 1SS120 |
| IC101 | 8-759-105-34 | s | IC UPC78L08J |
| IC201 | 8-759-105-34 | s | IC UPC78L08J |
| L101 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L102 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L103 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L104 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L105 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L106 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L107 | 1-412-012-11 | s | INDUCTOR 100UH |
| L201 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L202 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L203 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L204 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L205 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L206 | 1-410-396-41 | s | INDUCTOR 0.45UH |
| L207 | 1-412-012-11 | s | INDUCTOR 100UH |
| Q101 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q102 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q103 | 8-729-125-20 | s | TRANSISTOR 2SC1252 |
| Q104 | 8-729-125-20 | s | TRANSISTOR 2SC1252 |
| Q105 | 8-729-125-20 | s | TRANSISTOR 2SC1252 |
| Q106 | 8-729-125-20 | s | TRANSISTOR 2SC1252 |
| Q107 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q108 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q201 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q202 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q203 | 8-729-125-20 | s | TRANSISTOR 2SC1252 |
| Q204 | 8-729-125-20 | s | TRANSISTOR 2SC1252 |
| Q205 | 8-729-125-20 | s | TRANSISTOR 2SC1252 |
| Q206 | 8-729-125-20 | s | TRANSISTOR 2SC1252 |
| Q207 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q208 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| R127 | 1-215-374-31 | s | METAL 11 1% 1/4W |
| R227 | 1-215-374-31 | s | METAL 11 1% 1/4W |
| T101 | 1-423-373-11 | s | TRANSFORMER, RF |
| T102 | 1-423-373-11 | s | TRANSFORMER, RF |
| T201 | 1-423-373-11 | s | TRANSFORMER, RF |
| T202 | 1-423-373-11 | s | TRANSFORMER, RF |

---
RJ BOARD
---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-007-B | o | MOUNTED PCB, RJ |
| CN1 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN2 | 1-560-309-00 | o | CONNECTOR, IL 3P, MALE |
| CN3 | 1-560-308-00 | o | POST HEADER, 2P |
| D1 | 1-807-068-11 | s | PHOTO-INTERRUPTER GP1A07 |
| D2 | 1-807-068-11 | s | PHOTO-INTERRUPTER GP1A07 |
| R1 | 1-247-114-00 | s | CARBON 200 5% 1/4W |

---
RL-SW BOARD
---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-015-B | o | MOUNTED PCB, RL-SW |
| SW1 | 1-516-961-00 | s | SWITCH, LEVER SLIDE |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

## RP BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-102-B | o | COMPLETE PCB, RP |
| C7 | 1-124-034-51 | s | ELECT 33uF 20% 16V |
| C14 | 1-102-106-00 | s | CERAMIC 100PF 10% 50V |
| C21 | 1-107-159-00 | s | MICA 33PF 5% 500V |
| C52 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C53 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C54 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C55 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C56 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C57 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C58 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C59 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C60 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C61 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C62 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C63 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C64 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C65 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C66 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C67 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C68 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C201 | 1-123-566-00 | s | ELECT 2200uF 20% 10V |
| C501 | 1-131-341-00 | s | TANTALUM 0.1uF 10% 35V |
| C502 | 1-131-367-00 | s | TANTALUM 22uF 10% 20V |
| CN1 | 1-560-729-00 | o | CONNECTOR, 34P, MALE |
| CN2 | 1-508-775-00 | o | PIN, CONNECTOR, 2P (WITH LOCK) |
| CN3 | 1-560-306-00 | o | CONNECTOR, IL 12P, MALE |
| CN4 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN5 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN6 | 1-560-305-00 | o | CONNECTOR, IL 10P, MALE |
| CN7 | 1-560-302-00 | o | CONNECTOR, IL 5P, MALE |
| CN8 | 1-560-302-00 | o | CONNECTOR, IL 5P, MALE |
| CN201 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN202 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN203 | 1-560-725-00 | o | CONNECTOR, 16P, MALE |
| CN301 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN302 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN303 | 1-560-306-00 | o | CONNECTOR, IL 12P, MALE |
| CN304 | 1-560-724-00 | o | CONNECTOR, 10P, MALE |
| CN305 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-800-33 | s | DIODE TLG102A |
| D3 | 8-719-800-33 | s | DIODE TLG102A |
| D4 | 8-719-800-33 | s | DIODE TLG102A |
| D5 | 8-719-800-33 | s | DIODE TLG102A |
| D6 | 8-719-800-33 | s | DIODE TLG102A |
| D301 | 8-719-110-08 | s | DIODE RD8.2ES-B2 |
| D302 | 8-719-110-08 | s | DIODE RD8.2ES-B2 |
| D303 | 8-719-815-85 | s | DIODE 1S1585 |
| D401 | 8-719-800-33 | s | DIODE TLG102A |
| D501 | 8-719-815-85 | s | DIODE 1S1585 |
| IC1 | 8-759-902-44 | s | IC SN74LS244N |
| IC2 | 8-759-903-73 | s | IC SN74LS373N |
| IC3 | 8-759-974-06 | s | IC SN7406N |
| IC4 | 8-759-974-06 | s | IC SN7406N |
| IC5 | 8-759-900-00 | s | IC SN74LS00N |

## (RP BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC6 | 8-759-900-04 | s | IC SN74LS04N |
| IC7 | 8-759-974-06 | s | IC SN7406N |
| IC8 | 8-759-901-58 | s | IC SN74LS158N |
| IC9 | 8-759-901-58 | s | IC SN74LS158N |
| IC10 | 8-759-901-58 | s | IC SN74LS158N |
| IC11 | 8-759-900-00 | s | IC SN74LS00N |
| IC12 | 8-759-902-21 | s | IC SN74LS221N |
| IC13 | 8-759-901-07 | s | IC SN74LS107AN |
| IC14 | 8-759-902-44 | s | IC SN74LS244N |
| IC15 | 8-759-974-07 | s | IC SN7407N |
| IC16 | 8-759-902-44 | s | IC SN74LS244N |
| IC17 | 8-759-902-44 | s | IC SN74LS244N |
| IC18 | 8-759-974-07 | s | IC SN7407N |
| IC19 | 8-759-901-93 | s | IC SN74LS193N |
| IC20 | 8-759-900-02 | s | IC SN74LS02N |
| IC21 | 8-759-354-51 | s | IC HD75451AP |
| IC22 | 8-759-900-14 | s | IC SN74LS14N |
| IC23 | 8-759-901-48 | s | IC SN74LS148N |
| IC24 | 8-759-900-04 | s | IC SN74LS04N |
| IC25 | 8-759-900-00 | s | IC SN74LS00N |
| IC26 | 8-759-901-51 | s | IC SN74LS151N |
| IC27 | 8-759-901-51 | s | IC SN74LS151N |
| IC28 | 8-759-901-51 | s | IC SN74LS151N |
| IC29 | 8-759-901-51 | s | IC SN74LS151N |
| IC30 | 8-759-901-51 | s | IC SN74LS151N |
| IC31 | 8-759-900-02 | s | IC SN74LS02N |
| IC32 | 8-759-900-42 | s | IC SN74LS42N |
| IC33 | 8-759-500-73 | s | IC SN74LS259BN |
| IC34 | 8-759-500-73 | s | IC SN74LS259BN |
| IC35 | 8-759-900-02 | s | IC SN74LS02N |
| IC36 | 8-759-900-00 | s | IC SN74LS00N |
| IC37 | 8-759-900-04 | s | IC SN74LS04N |
| IC38 | 8-759-902-21 | s | IC SN74LS221N |
| IC301 | 8-759-145-58 | s | IC RC4558P |
| IC302 | 8-759-145-58 | s | IC RC4558P |
| IC303 | 8-759-140-53 | s | IC UPD4053BC |
| IC304 | 8-759-145-58 | s | IC RC4558P |
| IC401 | 8-759-901-58 | s | IC SN74LS158N |
| IC402 | 8-759-974-06 | s | IC SN7406N |
| IC403 | 8-759-902-44 | s | IC SN74LS244N |
| IC501 | 8-759-939-36 | s | IC TL7705ACP |
| L1 | 1-409-339-00 | s | COIL, CHOKE |
| Q1 | 8-729-119-78 | s | TRANSISTOR 2SC1815-HFE |
| Q301 | 8-729-119-78 | s | TRANSISTOR 2SC1815-HFE |
| Q302 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q501 | 8-729-119-78 | s | TRANSISTOR 2SC1815-HFE |
| R301 | 1-247-126-00 | s | CARBON 620 5% 1/4W |
| R305 | 1-247-126-00 | s | CARBON 620 5% 1/4W |
| R309 | 1-247-126-00 | s | CARBON 620 5% 1/4W |
| R313 | 1-247-126-00 | s | CARBON 620 5% 1/4W |
| R332 | 1-247-126-00 | s | CARBON 620 5% 1/4W |
| R333 | 1-247-126-00 | s | CARBON 620 5% 1/4W |
| RV1 | 1-237-513-21 | s | RES, VAR, 200 |
| SW1 | 1-570-106-11 | s | SWITCH, TACT |
| SW2 | 1-570-106-11 | s | SWITCH, TACT |
| SW3 | 1-570-106-11 | s | SWITCH, TACT |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(RP BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| SW4 | 1-570-106-11 | s | SWITCH, TACT |
| SW5 | 1-570-106-11 | s | SWITCH, TACT |
| SW6 | 1-570-106-11 | s | SWITCH, TACT |
| SW7 | 1-570-186-11 | s | SWITCH, TOGGLE |
| SW301 | 1-570-186-11 | s | SWITCH, TOGGLE |
| SW302 | 1-570-186-11 | s | SWITCH, TOGGLE |
| SW401 | 1-570-106-11 | s | SWITCH, TACT |
| T301 | 1-423-226-00 | s | TRANSFORMER, INPUT/OUTPUT |
| T302 | 1-423-226-00 | s | TRANSFORMER, INPUT/OUTPUT |
| T303 | 1-423-226-00 | s | TRANSFORMER, INPUT/OUTPUT |
| T304 | 1-423-226-00 | s | TRANSFORMER, INPUT/OUTPUT |

RSV BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-087-B | o | COMPLETE PCB, RSV |
| C4 | 1-131-587-11 | s | TANTALUM 0.68uF 5% 35V |
| C5 | 1-131-587-11 | s | TANTALUM 0.68uF 5% 35V |
| C10 | 1-131-343-00 | s | TANTALUM 0.22uF 10% 35V |
| C11 | 1-131-343-00 | s | TANTALUM 0.22uF 10% 35V |
| C22 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C23 | 1-131-352-00 | s | TANTALUM 6.8uF 10% 35V |
| C24 | 1-131-352-00 | s | TANTALUM 6.8uF 10% 35V |
| C27 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C28 | 1-131-345-00 | s | TANTALUM 0.47uF 10% 35V |
| C104 | 1-131-587-11 | s | TANTALUM 0.68uF 5% 35V |
| C105 | 1-131-587-11 | s | TANTALUM 0.68uF 5% 35V |
| C110 | 1-131-343-00 | s | TANTALUM 0.22uF 10% 35V |
| C111 | 1-131-343-00 | s | TANTALUM 0.22uF 10% 35V |
| C122 | 1-131-347-00 | s | TANTALUM 1uF 10% 35V |
| C123 | 1-131-352-00 | s | TANTALUM 6.8uF 10% 35V |
| C124 | 1-131-352-00 | s | TANTALUM 6.8uF 10% 35V |
| C127 | 1-131-353-00 | s | TANTALUM 10uF 10% 35V |
| C128 | 1-131-345-00 | s | TANTALUM 0.47uF 10% 35V |
| D1 | 8-719-110-13 | s | DIODE RD9.1ES-B2 |
| D2 | 8-719-820-12 | s | LED TLR214, RED |
| D3 | 8-719-815-85 | s | DIODE 1S1585 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-815-85 | s | DIODE 1S1585 |
| D6 | 8-719-815-85 | s | DIODE 1S1585 |
| D7 | 8-719-815-85 | s | DIODE 1S1585 |
| D8 | 8-719-815-85 | s | DIODE 1S1585 |
| D9 | 8-719-815-85 | s | DIODE 1S1585 |
| D10 | 8-719-815-85 | s | DIODE 1S1585 |
| D11 | 8-719-815-85 | s | DIODE 1S1585 |
| D12 | 1-807-049-21 | s | DIODE LN35GP |
| D13 | 1-807-049-21 | s | DIODE LN35GP |
| D14 | 1-807-049-21 | s | DIODE LN35GP |
| D15 | 1-807-049-21 | s | DIODE LN35GP |
| D16 | 1-807-049-21 | s | DIODE LN35GP |
| D17 | 1-807-049-21 | s | DIODE LN35GP |
| D101 | 8-719-110-13 | s | DIODE RD9.1ES-B2 |
| D102 | 8-719-820-12 | s | LED TLR214, RED |
| D103 | 8-719-815-85 | s | DIODE 1S1585 |
| D104 | 8-719-815-85 | s | DIODE 1S1585 |
| D105 | 8-719-815-85 | s | DIODE 1S1585 |
| D106 | 8-719-815-85 | s | DIODE 1S1585 |
| D107 | 8-719-815-85 | s | DIODE 1S1585 |
| D108 | 8-719-815-85 | s | DIODE 1S1585 |
| D109 | 8-719-815-85 | s | DIODE 1S1585 |
| D110 | 8-719-815-85 | s | DIODE 1S1585 |
| D111 | 8-719-815-85 | s | DIODE 1S1585 |
| D112 | 1-807-049-21 | s | DIODE LN35GP |
| D113 | 1-807-049-21 | s | DIODE LN35GP |
| D114 | 1-807-049-21 | s | DIODE LN35GP |
| D115 | 1-807-049-21 | s | DIODE LN35GP |
| D116 | 1-807-049-21 | s | DIODE LN35GP |
| D117 | 1-807-049-21 | s | DIODE LN35GP |
| D201 | 8-719-815-85 | s | DIODE 1S1585 |
| IC1 | 8-759-145-58 | s | IC RC4558P |
| IC2 | 8-759-131-11 | s | IC UPC311C |
| IC3 | 8-759-131-11 | s | IC UPC311C |
| IC4 | 8-759-145-58 | s | IC RC4558P |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(RSV BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC5 | 8-759-145-58 | s | IC RC4558P |
| IC6 | 8-759-145-58 | s | IC RC4558P |
| IC7 | 8-759-145-58 | s | IC RC4558P |
| IC8 | 8-759-000-49 | s | IC MC14066BCP |
| IC9 | 8-759-145-58 | s | IC RC4558P |
| IC11 | 1-807-033-11 | s | IC LM2907N |
| IC12 | 8-759-000-49 | s | IC MC14066BCP |
| IC13 | 8-759-145-58 | s | IC RC4558P |
| IC14 | 8-759-145-58 | s | IC RC4558P |
| IC15 | 8-759-205-76 | s | IC TC504013BP |
| IC16 | 8-759-145-58 | s | IC RC4558P |
| IC17 | 8-759-240-11 | s | IC TC4011BP |
| IC18 | 8-759-345-38 | s | IC HD14538BP |
| IC19 | 8-759-240-11 | s | IC TC4011BP |
| IC101 | 8-759-145-58 | s | IC RC4558P |
| IC102 | 8-759-131-11 | s | IC UPC311C |
| IC103 | 8-759-131-11 | s | IC UPC311C |
| IC104 | 8-759-145-58 | s | IC RC4558P |
| IC105 | 8-759-145-58 | s | IC RC4558P |
| IC106 | 8-759-145-58 | s | IC RC4558P |
| IC107 | 8-759-145-58 | s | IC RC4558P |
| IC108 | 8-759-000-49 | s | IC MC14066BCP |
| IC109 | 8-759-145-58 | s | IC RC4558P |
| IC111 | 1-807-033-11 | s | IC LM2907N |
| IC112 | 8-759-000-49 | s | IC MC14066BCP |
| IC113 | 8-759-145-58 | s | IC RC4558P |
| IC114 | 8-759-145-58 | s | IC RC4558P |
| IC115 | 8-759-205-76 | s | IC TC504013BP |
| IC116 | 8-759-145-58 | s | IC RC4558P |
| IC117 | 8-759-240-11 | s | IC TC4011BP |
| IC118 | 8-759-345-38 | s | IC HD14538BP |
| IC119 | 8-759-240-11 | s | IC TC4011BP |
| L201 | 1-409-339-00 | s | COIL, CHOKE |
| L202 | 1-409-339-00 | s | COIL, CHOKE |
| Q1 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q2 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q3 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q101 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q102 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q103 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q201 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| R6 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R11 | 1-247-170-00 | s | CARBON 43K 5% 1/4W |
| R106 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R111 | 1-247-170-00 | s | CARBON 43K 5% 1/4W |
| R203 | 1-247-126-00 | s | CARBON 620 5% 1/4W |
| RV1 | 1-237-515-21 | s | RES, VAR 1K |
| RV2 | 1-237-516-21 | s | RES, VAR 2K |
| RV3 | 1-237-516-21 | s | RES, VAR 2K |
| RV4 | 1-237-516-21 | s | RES, VAR 2K |
| RV5 | 1-237-516-21 | s | RES, VAR 2K |
| RV6 | 1-237-516-21 | s | RES, VAR 2K |
| RV7 | 1-237-516-21 | s | RES, VAR 2K |
| RV8 | 1-237-516-21 | s | RES, VAR 2K |
| RV10 | 1-237-516-21 | s | RES, VAR 2K |
| RV11 | 1-237-516-21 | s | RES, VAR 2K |
| RV12 | 1-237-515-21 | s | RES, VAR 1K |

(RSV BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| RV14 | 1-237-517-21 | s | RES, VAR 5K |
| RV15 | 1-237-521-21 | s | RES, VAR 100K |
| RV16 | 1-237-521-21 | s | RES, VAR 100K |
| RV101 | 1-237-515-21 | s | RES, VAR 1K |
| RV102 | 1-237-516-21 | s | RES, VAR 2K |
| RV103 | 1-237-516-21 | s | RES, VAR 2K |
| RV104 | 1-237-516-21 | s | RES, VAR 2K |
| RV106 | 1-237-516-21 | s | RES, VAR 2K |
| RV107 | 1-237-516-21 | s | RES, VAR 2K |
| RV108 | 1-237-516-21 | s | RES, VAR 2K |
| RV110 | 1-237-516-21 | s | RES, VAR 2K |
| RV111 | 1-237-516-21 | s | RES, VAR 2K |
| RV112 | 1-237-515-21 | s | RES, VAR 1K |
| RV114 | 1-237-517-21 | s | RES, VAR 5K |
| RV115 | 1-237-521-21 | s | RES, VAR 100K |
| RV116 | 1-237-521-21 | s | RES, VAR 100K |
| RV201 | 1-237-515-21 | s | RES, VAR 1K |
| SW1 | 1-553-439-00 | s | SWITCH, TOGGLE |
| SW2 | 1-553-441-00 | s | SWITCH, TOGGLE |
| SW101 | 1-553-439-00 | s | SWITCH, TOGGLE |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

SEP-MM01(YCS)BOARD:MMV800/800-A/810/810-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-233-A | o | COMPLETE PCB, SEP-MM01:MMV800/810 |
| C001 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C002 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C003 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C004 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C005 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C006 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C007 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C008 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C009 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C010 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C011 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C012 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C013 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C015 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C016 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C017 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C018 | 1-126-163-11 | s | ELECT 4.7uF 20% 50V |
| C019 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C020 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C022 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C023 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C024 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C025 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C027 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C028 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C029 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C030 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C031 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C032 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C033 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C034 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C035 | 1-164-023-51 | s | CERAMIC 15PF 5% 50V |
| C036 | 1-164-012-11 | s | CERAMIC 3PF 0.25PF 50V |
| C037 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C038 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C039 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C040 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C041 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C044 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C045 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C047 | 1-102-816-00 | s | CERAMIC 120PF 5% 50V |
| C048 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C049 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C050 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C051 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C052 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C056 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C057 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C058 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C109 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C110 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C111 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C117 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C131 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C201 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C202 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C203 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |

(SEP-MM01(YCS)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C204 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C206 | 1-164-023-11 | s | CERAMIC 15PF 5% 50V |
| C207 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C208 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C209 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C210 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C211 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C212 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C213 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C214 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C215 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C219 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C301 | 1-126-155-51 | s | ELECT 100uF 20% 6.3V |
| C303 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C304 | 1-126-155-51 | s | ELECT 100uF 20% 6.3V |
| C306 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C310 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C311 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C316 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C320 | 1-126-155-51 | s | ELECT 100uF 20% 6.3V |
| C326 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C333 | 1-126-155-51 | s | ELECT 100uF 20% 6.3V |
| C401 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C402 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C403 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C404 | 1-102-816-00 | s | CERAMIC 120PF 5% 50V |
| C405 | 1-131-341-00 | s | TANTALUM 0.1uF 10% 35V |
| C407 | 1-162-888-11 | s | CERAMIC 560PF 5% 50V |
| C408 | 1-162-888-11 | s | CERAMIC 560PF 5% 50V |
| C409 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C410 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C417 | 1-162-724-11 | s | CERAMIC 390PF 1% 50V |
| C505 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C601 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C604 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C606 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C608 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C609 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C612 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C614 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C616 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C701 | 1-101-884-00 | s | CERAMIC 56PF 5% 50V |
| C703 | 1-101-884-00 | s | CERAMIC 56PF 5% 50V |
| C707 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| D001 | 8-719-912-20 | s | DIODE 1SS120 |
| D002 | 8-719-912-20 | s | DIODE 1SS120 |
| D003 | 8-719-912-20 | s | DIODE 1SS120 |
| D005 | 1-807-049-21 | s | DIODE LN35GP |
| D006 | 8-719-912-20 | s | DIODE 1SS120 |
| D007 | 8-719-912-20 | s | DIODE 1SS120 |
| D008 | 8-719-109-80 | s | DIODE RD4.7ES-B1 |
| D009 | 8-719-109-50 | s | DIODE RD2.0ES-B1 |
| D010 | 8-719-912-20 | s | DIODE 1SS120 |
| D101 | 8-719-936-56 | s | DIODE DAN209S |
| D102 | 8-719-933-28 | s | DIODE DAP209S |
| D103 | 8-719-912-20 | s | DIODE 1SS120 |
| D104 | 8-719-912-20 | s | DIODE 1SS120 |
| D105 | 8-719-820-12 | s | LED TLR214, RED |
| D201 | 8-719-109-74 | s | DIODE RD4.3ES-B1 |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(SEP-MM01(YCS)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| D202 | 8-719-109-74 | s | DIODE RD4.3ES-B1 |
| D301 | 8-719-912-20 | s | DIODE 1SS120 |
| D303 | 8-719-912-20 | s | DIODE 1SS120 |
| D304 | 8-719-912-20 | s | DIODE 1SS120 |
| FL001 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL002 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL003 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL004 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL005 | 1-424-338-11 | s | FILTER, NOISE |
| FL006 | 1-424-338-11 | s | FILTER, NOISE |
| FL101 | 1-424-338-11 | s | FILTER, NOISE |
| FL102 | 1-424-338-11 | s | FILTER, NOISE |
| FL103 | 1-424-338-11 | s | FILTER, NOISE |
| FL104 | 1-424-338-11 | s | FILTER, NOISE |
| FL105 | 1-424-338-11 | s | FILTER, NOISE |
| FL106 | 1-424-338-11 | s | FILTER, NOISE |
| FL107 | 1-424-338-11 | s | FILTER, NOISE |
| FL109 | 1-402-939-11 | s | FILTER, NOISE |
| FL201 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL202 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL203 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL204 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL301 | 1-424-338-11 | s | FILTER, NOISE |
| FL302 | 1-424-338-11 | s | FILTER, NOISE |
| FL303 | 1-424-338-11 | s | FILTER, NOISE |
| FL304 | 1-424-338-11 | s | FILTER, NOISE |
| FL305 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| FL501 | 1-424-338-11 | s | FILTER, NOISE |
| FL502 | 1-424-338-11 | s | FILTER, NOISE |
| IC001 | 8-759-711-23 | s | IC NJM2234L |
| IC002 | 8-759-711-23 | s | IC NJM2234L |
| IC003 | 8-759-420-62 | s | IC AN3916 |
| IC004 | 8-752-054-80 | s | IC CXA1521M |
| IC005 | 1-809-903-11 | s | IC NJM2245L |
| IC006 | 8-759-990-84 | s | IC TL084CN |
| IC007 | 8-759-140-53 | s | IC UPD4053BC |
| IC101 | 8-759-232-64 | s | IC TC74HC157AP |
| IC102 | 8-759-232-64 | s | IC TC74HC157AP |
| IC103 | 8-759-113-97 | s | IC UPD42505C-50 |
| IC104 | 8-752-056-91 | s | IC CXA1106P |
| IC105 | 8-752-334-56 | s | IC CXD1175AP |
| IC106 | 8-752-342-61 | s | IC CXD2105AQ |
| IC301 | 8-759-632-99 | s | IC M5215TL |
| IC302 | 8-759-904-20 | s | IC MB4002 |
| IC303 | 8-759-000-01 | s | IC MC74HC4538N |
| IC304 | 8-759-032-81 | s | IC MC74HC74AN |
| IC305 | 8-759-916-16 | s | IC SN74HC08AN |
| IC306 | 8-759-232-07 | s | IC TC74HC04AP |
| IC307 | 8-759-241-38 | s | IC TC74HC366AP |
| IC308 | 8-752-306-51 | s | IC CX23065 |
| IC309 | 8-759-503-91 | s | IC TL082CP |
| IC310 | 8-759-140-53 | s | IC UPD4053BC |
| IC311 | 8-759-901-63 | s | IC SN74LS163AN |
| IC401 | 8-759-201-47 | s | IC TA7357AP |
| IC402 | 8-759-901-23 | s | IC SN74LS123N |
| IC403 | 8-759-032-81 | s | IC MC74HC74AN |
| IC404 | 8-759-902-21 | s | IC SN74LS221N |
| IC405 | 8-759-000-01 | s | IC MC74HC4538N |
| IC501 | 8-759-232-64 | s | IC TC74HC157AP |

(SEP-MM01(YCS)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC502 | 8-759-232-64 | s | IC TC74HC157AP |
| IC503 | 8-759-232-64 | s | IC TC74HC157AP |
| IC504 | 8-759-232-73 | s | IC TC74HC163AP |
| IC505 | 8-759-232-64 | s | IC TC74HC157AP |
| IC506 | 8-759-232-64 | s | IC TC74HC157AP |
| IC507 | 8-759-232-64 | s | IC TC74HC157AP |
| IC508 | 8-759-232-73 | s | IC TC74HC163AP |
| IC601 | 8-759-701-59 | s | IC NJM78M09FA |
| IC602 | 8-759-701-75 | s | IC NJM7805FA |
| IC603 | 8-759-701-87 | s | IC NJM7909FA |
| IC604 | 8-759-701-84 | s | IC NJM7905FA |
| L4 | 1-410-478-11 | s | INDUCTOR 47uH |
| L5 | 1-410-478-11 | s | INDUCTOR 47uH |
| L601 | 1-412-012-11 | s | INDUCTOR 100UH |
| L602 | 1-412-012-11 | s | INDUCTOR 100UH |
| L701 | 1-410-470-11 | s | INDUCTOR 10UH |
| LPF1 | 1-236-387-11 | s | FILTER, LOW PASS |
| LPF2 | 1-236-005-11 | s | FILTER, LOW-PASS |
| LPF3 | 1-236-005-11 | s | FILTER, LOW-PASS |
| Q6 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q7 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q001 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q002 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q003 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q004 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q005 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q008 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q009 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q010 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q011 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q012 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q013 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q014 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q015 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q016 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q017 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q018 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q101 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q102 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q103 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q104 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q105 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q106 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q201 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q202 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q203 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q204 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q205 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q206 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q207 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q208 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q209 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q210 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q211 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q212 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q213 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q214 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q215 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(SEP-MM01(YCS)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q216 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q217 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q301 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| R001 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R002 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R003 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R004 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R006 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R007 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R008 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R009 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R010 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R012 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R013 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R014 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R019 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R020 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R021 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R024 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R025 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R026 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R027 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R028 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R029 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R031 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R033 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R034 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R035 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R036 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R037 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R038 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R039 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R042 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R043 | 1-249-424-11 | s | CARBON 3.9K 5% 1/4W |
| R044 | 1-249-397-11 | s | CARBON 22 5% 1/4W |
| R045 | 1-249-397-11 | s | CARBON 22 5% 1/4W |
| R046 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R052 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R053 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R054 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R055 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R056 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R057 | 1-249-424-11 | s | CARBON 3.9K 5% 1/4W |
| R059 | 1-249-428-11 | s | CARBON 8.2K 5% 1/4W |
| R060 | 1-249-427-11 | s | CARBON 6.8K 5% 1/4W |
| R061 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R062 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R063 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R064 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R065 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R101 | 1-249-390-11 | s | CARBON 5.6 5% 1/4W |
| R102 | 1-249-390-11 | s | CARBON 5.6 5% 1/4W |
| R105 | 1-249-408-11 | s | CARBON 180 5% 1/4W |
| R106 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R107 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R108 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R109 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R110 | 1-249-381-11 | s | CARBON 1 5% 1/4W |

(SEP-MM01(YCS)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R111 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R112 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R116 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R117 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R118 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R119 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R120 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R121 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R122 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R123 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R124 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R125 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R130 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R131 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R132 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R133 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R134 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R135 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R136 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R137 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R138 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R139 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R140 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R141 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R142 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R144 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R201 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R202 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R207 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R208 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R209 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R210 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R214 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R215 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R216 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R217 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R218 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R219 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R220 | 1-249-403-11 | s | CARBON 68 5% 1/4W |
| R221 | 1-249-403-11 | s | CARBON 68 5% 1/4W |
| R222 | 1-249-403-11 | s | CARBON 68 5% 1/4W |
| R223 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R224 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R225 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R226 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R227 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R228 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R231 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R232 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R233 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R234 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R238 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R239 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R240 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R241 | 1-249-403-11 | s | CARBON 68 5% 1/4W |
| R244 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R245 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R246 | 1-249-403-11 | s | CARBON 68 5% 1/4W |
| R247 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(SEP-MM01(YCS)BOARD:MMV800/800-A/810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R301 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R302 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R303 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R304 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R305 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R309 | 1-249-437-11 | s | CARBON 47K 5% 1/4W |
| R310 | 1-247-883-11 | s | CARBON 150K 5% 1/4W |
| R311 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R312 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R313 | 1-249-437-11 | s | CARBON 47K 5% 1/4W |
| R314 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R319 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R320 | 1-249-390-11 | s | CARBON 5.6 5% 1/4W |
| R322 | 1-249-390-11 | s | CARBON 5.6 5% 1/4W |
| R401 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R406 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R407 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R409 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R410 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R411 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R412 | 1-215-472-00 | s | METAL 130K 1% 1/4W |
| R413 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R414 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R417 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R503 | 1-249-428-11 | s | CARBON 8.2K 5% 1/4W |
| R504 | 1-247-847-11 | s | CARBON 4.7K 5% 1/4W |
| R505 | 1-247-847-11 | s | CARBON 4.7K 5% 1/4W |
| R507 | 1-247-883-11 | s | CARBON 150K 5% 1/4W |
| R511 | 1-247-855-11 | s | CARBON 10K 5% 1/4W |
| R512 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R513 | 1-249-428-11 | s | CARBON 8.2K 5% 1/4W |
| RB501 | 1-235-724-11 | s | RESISTOR BLOCK 10Kx8 |
| RB502 | 1-235-724-11 | s | RESISTOR BLOCK 10Kx8 |
| RB503 | 1-235-724-11 | s | RESISTOR BLOCK 10Kx8 |
| RB504 | 1-235-724-11 | s | RESISTOR BLOCK 10Kx8 |
| RV001 | 1-238-892-11 | s | RES, VAR, 1K |
| RV002 | 1-237-518-21 | s | RES, VAR 10K |
| RV003 | 1-237-515-21 | s | RES, VAR 1K |
| RV004 | 1-237-518-21 | s | RES, VAR 10K |
| RV401 | 1-237-521-21 | s | RES, VAR 100K |
| RV402 | 1-237-516-21 | s | RES, VAR 2K |
| S001 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S101 | 1-570-373-12 | s | SWITCH, SLIDE |
| S501 | 1-553-925-00 | s | SWITCH, DIGITAL |
| S502 | 1-553-925-00 | s | SWITCH, DIGITAL |
| S503 | 1-553-925-00 | s | SWITCH, DIGITAL |
| S504 | 1-553-925-00 | s | SWITCH, DIGITAL |
| VC01 | 1-567-644-11 | s | VCO, CRYSTAL 14.31818MHz |

---

SEP-MM02(YCS)BOARD:MMV802/802-A

---

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-251-A | o | COMPLETE PCB, SEP-MM02:MMV802 |
| C001 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C002 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C003 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C004 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C005 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C006 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C007 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C008 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C009 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C010 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C011 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C012 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C013 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C015 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C016 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C017 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C018 | 1-126-163-11 | s | ELECT 4.7uF 20% 50V |
| C019 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C020 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C022 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C023 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C024 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C025 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C027 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C028 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C029 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C030 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C031 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C032 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C033 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C034 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C035 | 1-164-023-51 | s | CERAMIC 15PF 5% 50V |
| C036 | 1-164-012-11 | s | CERAMIC 3PF 0.25PF 50V |
| C037 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C038 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C039 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C040 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C041 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C044 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C045 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C047 | 1-102-816-00 | s | CERAMIC 120PF 5% 50V |
| C048 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C049 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C050 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C051 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C052 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C056 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C057 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C058 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C109 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C110 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C111 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C117 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C131 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C201 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C202 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C203 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(SEP-MM02(YCS)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C204 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C206 | 1-164-023-11 | s | CERAMIC 15PF 5% 50V |
| C207 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C208 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C209 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C210 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C211 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C212 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C213 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C214 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C215 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C219 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C301 | 1-126-155-51 | s | ELECT 100uF 20% 6.3V |
| C303 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C304 | 1-126-155-51 | s | ELECT 100uF 20% 6.3V |
| C306 | 1-164-027-11 | s | CERAMIC 22PF 5% 50V |
| C309 | 1-164-033-11 | s | CERAMIC 39PF 5% 50V |
| C310 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C311 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C316 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C320 | 1-126-155-51 | s | ELECT 100uF 20% 6.3V |
| C326 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C333 | 1-126-155-51 | s | ELECT 100uF 20% 6.3V |
| C401 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C402 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C403 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C404 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C405 | 1-131-341-00 | s | TANTALUM 0.1uF 10% 35V |
| C407 | 1-162-888-11 | s | CERAMIC 560PF 5% 50V |
| C408 | 1-162-888-11 | s | CERAMIC 560PF 5% 50V |
| C409 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C410 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C417 | 1-162-724-11 | s | CERAMIC 390PF 1% 50V |
| C505 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C601 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C604 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C606 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C608 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C609 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C612 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C614 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C616 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C701 | 1-101-884-00 | s | CERAMIC 56PF 5% 50V |
| C703 | 1-101-884-00 | s | CERAMIC 56PF 5% 50V |
| C707 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| D001 | 8-719-912-20 | s | DIODE 1SS120 |
| D002 | 8-719-912-20 | s | DIODE 1SS120 |
| D003 | 8-719-912-20 | s | DIODE 1SS120 |
| D005 | 1-807-049-21 | s | DIODE LN35GP |
| D006 | 8-719-912-20 | s | DIODE 1SS120 |
| D007 | 8-719-912-20 | s | DIODE 1SS120 |
| D008 | 8-719-109-80 | s | DIODE RD4.7ES-B1 |
| D009 | 8-719-109-50 | s | DIODE RD2.0ES-B1 |
| D010 | 8-719-912-20 | s | DIODE 1SS120 |
| D101 | 8-719-936-56 | s | DIODE DAN209S |
| D102 | 8-719-933-28 | s | DIODE DAP209S |
| D103 | 8-719-912-20 | s | DIODE 1SS120 |
| D104 | 8-719-912-20 | s | DIODE 1SS120 |
| D105 | 8-719-820-12 | s | LED TLR214, RED |

(SEP-MM02(YCS)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| D201 | 8-719-109-74 | s | DIODE RD4.3ES-B1 |
| D202 | 8-719-109-74 | s | DIODE RD4.3ES-B1 |
| D301 | 8-719-912-20 | s | DIODE 1SS120 |
| D303 | 8-719-912-20 | s | DIODE 1SS120 |
| D304 | 8-719-912-20 | s | DIODE 1SS120 |
| FL001 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL002 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL003 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL004 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL005 | 1-424-338-11 | s | FILTER, NOISE |
| FL006 | 1-424-338-11 | s | FILTER, NOISE |
| FL101 | 1-424-338-11 | s | FILTER, NOISE |
| FL102 | 1-424-338-11 | s | FILTER, NOISE |
| FL103 | 1-424-338-11 | s | FILTER, NOISE |
| FL104 | 1-424-338-11 | s | FILTER, NOISE |
| FL105 | 1-424-338-11 | s | FILTER, NOISE |
| FL106 | 1-424-338-11 | s | FILTER, NOISE |
| FL107 | 1-424-338-11 | s | FILTER, NOISE |
| FL108 | 1-424-338-11 | s | FILTER, NOISE |
| FL109 | 1-402-939-11 | s | FILTER, NOISE |
| FL201 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL202 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL203 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL204 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| FL301 | 1-424-338-11 | s | FILTER, NOISE |
| FL302 | 1-424-338-11 | s | FILTER, NOISE |
| FL303 | 1-424-338-11 | s | FILTER, NOISE |
| FL304 | 1-424-338-11 | s | FILTER, NOISE |
| FL305 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| FL501 | 1-424-338-11 | s | FILTER, NOISE |
| FL502 | 1-424-338-11 | s | FILTER, NOISE |
| IC001 | 8-759-711-23 | s | IC NJM2234L |
| IC002 | 8-759-711-23 | s | IC NJM2234L |
| IC003 | 8-759-420-62 | s | IC AN3916 |
| IC004 | 8-752-054-80 | s | IC CXA1521M |
| IC005 | 1-809-903-11 | s | IC NJM2245L |
| IC006 | 8-759-990-84 | s | IC TL084CN |
| IC007 | 8-759-140-53 | s | IC UPD4053BC |
| IC101 | 8-759-232-64 | s | IC TC74HC157AP |
| IC102 | 8-759-232-64 | s | IC TC74HC157AP |
| IC103 | 8-759-113-97 | s | IC UPD42505C-50 |
| IC104 | 8-752-056-91 | s | IC CXA1106P |
| IC105 | 8-752-334-56 | s | IC CXD1175AP |
| IC106 | 8-752-342-61 | s | IC CXD2105AQ |
| IC301 | 8-759-632-99 | s | IC M5215TL |
| IC302 | 8-759-904-20 | s | IC MB4002 |
| IC303 | 8-759-000-01 | s | IC MC74HC4538N |
| IC304 | 8-759-032-81 | s | IC MC74HC74AN |
| IC305 | 8-759-916-16 | s | IC SN74HC08AN |
| IC306 | 8-759-232-07 | s | IC TC74HC04AP |
| IC307 | 8-759-241-38 | s | IC TC74HC366AP |
| IC308 | 8-752-306-51 | s | IC CX23065 |
| IC309 | 8-759-503-91 | s | IC TL082CP |
| IC310 | 8-759-140-53 | s | IC UPD4053BC |
| IC311 | 8-759-901-63 | s | IC SN74LS163AN |
| IC401 | 8-759-201-47 | s | IC TA7357AP |
| IC402 | 8-759-901-23 | s | IC SN74LS123N |
| IC403 | 8-759-032-81 | s | IC MC74HC74AN |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(SEP-MM02(YCS)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC404 | 8-759-901-23 | s | IC SN74LS123N |
| IC405 | 8-759-000-01 | s | IC MC74HC4538N |
| IC501 | 8-759-232-64 | s | IC TC74HC157AP |
| IC502 | 8-759-232-64 | s | IC TC74HC157AP |
| IC503 | 8-759-232-64 | s | IC TC74HC157AP |
| IC504 | 8-759-232-73 | s | IC TC74HC163AP |
| IC505 | 8-759-232-64 | s | IC TC74HC157AP |
| IC506 | 8-759-232-64 | s | IC TC74HC157AP |
| IC507 | 8-759-232-64 | s | IC TC74HC157AP |
| IC508 | 8-759-232-73 | s | IC TC74HC163AP |
| IC601 | 8-759-701-59 | s | IC NJM78M09FA |
| IC602 | 8-759-701-75 | s | IC NJM7805FA |
| IC603 | 8-759-701-87 | s | IC NJM7909FA |
| IC604 | 8-759-701-84 | s | IC NJM7905FA |
| L4 | 1-410-478-11 | s | INDUCTOR 47uH |
| L5 | 1-410-478-11 | s | INDUCTOR 47uH |
| L303 | 1-408-418-00 | s | INDUCTOR 56uH |
| L402 | 1-410-471-11 | s | INDUCTOR 12uH |
| L601 | 1-412-012-11 | s | INDUCTOR 100UH |
| L602 | 1-412-012-11 | s | INDUCTOR 100UH |
| L701 | 1-410-470-11 | s | INDUCTOR 10UH |
| LPF1 | 1-236-387-11 | s | FILTER, LOW PASS |
| LPF2 | 1-236-005-11 | s | FILTER, LOW-PASS |
| LPF3 | 1-236-005-11 | s | FILTER, LOW-PASS |
| Q6 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q7 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q001 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q002 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q003 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q004 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q005 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q008 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q009 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q010 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q011 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q012 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q013 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q014 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q015 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q016 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q017 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q018 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q101 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q102 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q103 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q104 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q105 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q106 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q201 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q202 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q203 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q204 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q205 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q206 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q207 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q208 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q209 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q210 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

(SEP-MM02(YCS)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q211 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q212 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q213 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q214 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q215 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q216 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q217 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q301 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| R001 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R002 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R003 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R004 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R006 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R007 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R008 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R009 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R010 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R012 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R013 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R014 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R019 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R020 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R021 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R024 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R025 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R026 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R027 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R028 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R029 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R031 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R033 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R034 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R035 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R036 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R037 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R038 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R039 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R042 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R043 | 1-249-424-11 | s | CARBON 3.9K 5% 1/4W |
| R044 | 1-249-397-11 | s | CARBON 22 5% 1/4W |
| R045 | 1-249-397-11 | s | CARBON 22 5% 1/4W |
| R046 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R052 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R053 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R054 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R055 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R056 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R057 | 1-249-424-11 | s | CARBON 3.9K 5% 1/4W |
| R059 | 1-249-428-11 | s | CARBON 8.2K 5% 1/4W |
| R060 | 1-249-427-11 | s | CARBON 6.8K 5% 1/4W |
| R061 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R062 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R063 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R064 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R065 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R101 | 1-249-390-11 | s | CARBON 5.6 5% 1/4W |
| R102 | 1-249-390-11 | s | CARBON 5.6 5% 1/4W |
| R105 | 1-249-408-11 | s | CARBON 180 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(SEP-MM02(YCS)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R106 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R107 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R108 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R111 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R112 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R116 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R117 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R118 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R119 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R120 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R121 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R122 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R123 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R124 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R125 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R130 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R131 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R132 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R133 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R134 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R135 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R136 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R137 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R138 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R139 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R140 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R141 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R142 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R201 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R202 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R207 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R208 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R209 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R210 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R214 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R215 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R216 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R217 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R218 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R219 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R220 | 1-249-403-11 | s | CARBON 68 5% 1/4W |
| R221 | 1-249-403-11 | s | CARBON 68 5% 1/4W |
| R222 | 1-249-403-11 | s | CARBON 68 5% 1/4W |
| R223 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R224 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R225 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R226 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R227 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R228 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R231 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R232 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R233 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R234 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R238 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R239 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R240 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R241 | 1-249-403-11 | s | CARBON 68 5% 1/4W |
| R244 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R245 | 1-249-405-11 | s | CARBON 100 5% 1/4W |

(SEP-MM02(YCS)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R246 | 1-249-403-11 | s | CARBON 68 5% 1/4W |
| R247 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R301 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R302 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R303 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R304 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R305 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R309 | 1-249-437-11 | s | CARBON 47K 5% 1/4W |
| R310 | 1-247-886-11 | s | CARBON 200K 5% 1/4W |
| R311 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R312 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R313 | 1-249-437-11 | s | CARBON 47K 5% 1/4W |
| R314 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R319 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R320 | 1-249-390-11 | s | CARBON 5.6 5% 1/4W |
| R322 | 1-249-390-11 | s | CARBON 5.6 5% 1/4W |
| R401 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R406 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R407 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R409 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R410 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R411 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R412 | 1-249-439-11 | s | CARBON 68K 5% 1/4W |
| R413 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R414 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R417 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R503 | 1-249-428-11 | s | CARBON 8.2K 5% 1/4W |
| R504 | 1-247-847-11 | s | CARBON 4.7K 5% 1/4W |
| R505 | 1-247-847-11 | s | CARBON 4.7K 5% 1/4W |
| R507 | 1-247-884-11 | s | CARBON 160K 5% 1/4W |
| R511 | 1-247-855-11 | s | CARBON 10K 5% 1/4W |
| R512 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R513 | 1-249-428-11 | s | CARBON 8.2K 5% 1/4W |
| RB501 | 1-235-724-11 | s | RESISTOR BLOCK 10Kx8 |
| RB502 | 1-235-724-11 | s | RESISTOR BLOCK 10Kx8 |
| RB503 | 1-235-724-11 | s | RESISTOR BLOCK 10Kx8 |
| RB504 | 1-235-724-11 | s | RESISTOR BLOCK 10Kx8 |
| RV001 | 1-238-892-11 | s | RES, VAR, 1K |
| RV002 | 1-237-518-21 | s | RES, VAR 10K |
| RV003 | 1-237-515-21 | s | RES, VAR 1K |
| RV004 | 1-237-518-21 | s | RES, VAR 10K |
| RV401 | 1-237-520-21 | s | RES, VAR 50K |
| RV402 | 1-237-516-21 | s | RES, VAR 2K |
| S001 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S101 | 1-570-373-12 | s | SWITCH, SLIDE |
| S501 | 1-553-925-00 | s | SWITCH, DIGITAL |
| S502 | 1-553-925-00 | s | SWITCH, DIGITAL |
| S503 | 1-553-925-00 | s | SWITCH, DIGITAL |
| S504 | 1-553-925-00 | s | SWITCH, DIGITAL |
| S505 | 1-553-925-00 | s | SWITCH, DIGITAL |
| S506 | 1-553-925-00 | s | SWITCH, DIGITAL |
| S507 | 1-553-925-00 | s | SWITCH, DIGITAL |
| S508 | 1-553-925-00 | s | SWITCH, DIGITAL |
| VC01 | 1-567-891-11 | s | VCO, CRYSTAL 17.734476MHz |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

## SYC BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-163-C | o | COMPLETE PCB, SYC:MMV800 |
| | A-8615-132-D | o | COMPLETE PCB, SYC:MMV810 |
| | A-8615-151-C | o | COMPLETE PCB, SYC:MMV802 |
| C12 | 1-131-363-00 | s | TANTALUM 4.7uF 10% 20V |
| C18 | 1-107-206-00 | s | MICA 15PF 5% 500V |
| C19 | 1-107-206-00 | s | MICA 15PF 5% 500V |
| D1 | 8-719-815-85 | s | DIODE 1S1585 |
| D2 | 8-719-815-85 | s | DIODE 1S1585 |
| D3 | 8-719-109-85 | s | DIODE RD5.1ES-B2 |
| D4 | 8-719-815-85 | s | DIODE 1S1585 |
| D5 | 8-719-200-02 | s | DIODE 10E2 |
| D8 | 1-807-049-21 | s | DIODE LN35GP |
| D9 | 1-807-049-21 | s | DIODE LN35GP |
| D10 | 1-807-049-21 | s | DIODE LN35GP |
| D11 | 1-807-049-21 | s | DIODE LN35GP |
| FL1 | 1-421-773-11 | s | FILTER, NIOSE:MMV802 |
| IC2 | 8-759-900-40 | s | IC SN74LS40N |
| IC3 | 1-807-027-11 | s | IC M5L8212P |
| IC4 | 8-759-901-38 | s | IC SN74LS138N |
| IC5 | 8-759-974-07 | s | IC SN7407N |
| IC6 | 8-759-902-40 | s | IC SN74LS240N |
| IC7 | 8-759-974-07 | s | IC SN7407N |
| IC8 | 8-759-900-04 | s | IC SN74LS04N |
| IC9 | 8-759-901-38 | s | IC SN74LS138N |
| IC10 | PENDING | s | IC HN27C256G-25 |
| IC11 | 8-759-902-44 | s | IC SN74LS244N |
| IC12 | 8-759-974-07 | s | IC SN7407N |
| IC13 | 8-759-902-40 | s | IC SN74LS240N |
| IC14 | 8-759-974-07 | s | IC SN7407N |
| IC15 | 1-807-064-11 | s | IC M5L8085AP |
| IC17 | 8-759-600-86 | s | IC M5L8255AP-5 |
| IC18 | 8-759-902-40 | s | IC SN74LS240N |
| IC19 | 8-759-900-04 | s | IC SN74LS04N |
| IC20 | 8-759-900-04 | s | IC SN74LS04N |
| IC21 | 8-759-900-74 | s | IC SN74LS74AN |
| IC22 | 1-807-028-11 | s | IC M54816P |
| IC24 | 8-759-902-45 | s | IC SN74LS245N |
| IC25 | 8-759-902-40 | s | IC SN74LS240N |
| IC27 | 8-759-600-86 | s | IC M5L8255AP-5 |
| IC28 | 8-752-321-00 | s | IC CXK5816PN-12L |
| IC29 | 8-759-600-86 | s | IC M5L8255AP-5 |
| IC30 | 8-759-902-40 | s | IC SN74LS240N |
| IC31 | 8-759-900-11 | s | IC SN74LS11N |
| Q1 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q2 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C |
| R3 | 1-216-377-11 | s | METAL 4.7 5% 2W |
| RB2 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB3 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB4 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB5 | 1-231-407-00 | s | RESISTOR BLOCK 2.2K |
| RB6 | 1-244-996-11 | s | RESISTOR BLOCK 4.7K |
| RB7 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB8 | 1-231-407-00 | s | RESISTOR BLOCK 2.2K |
| RB9 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB10 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB11 | 1-231-407-00 | s | RESISTOR BLOCK 2.2K |

## (SYC BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| S1 | 1-553-252-00 | s | SWITCH, DIGITAL |
| S2 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S3 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S4 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S5 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S6 | 1-570-598-11 | s | SWITCH, DIP 4-CKT |
| S7 | 1-553-441-11 | s | SWITCH, TOGGLE |
| S9 | 1-553-441-00 | s | SWITCH, TOGGLE |
| X1 | 1-527-827-00 | s | OSCILLATOR, CRYSTAL |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

## SYI BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-010-B | o | COMPLETE PCB, SYI |
| CN1 | 1-566-180-11 | o | PIN, HEADER, 60P |
| D1 | 1-807-049-21 | s | DIODE LN35GP |
| D2 | 1-807-049-21 | s | DIODE LN35GP |
| D3 | 1-807-049-21 | s | DIODE LN35GP |
| D4 | 1-807-049-21 | s | DIODE LN35GP |
| D17 | 8-719-815-85 | s | DIODE 1S1585 |
| D18 | 8-719-815-85 | s | DIODE 1S1585 |
| D19 | 8-719-815-85 | s | DIODE 1S1585 |
| D21 | 8-719-200-02 | s | DIODE 10E2 |
| D22 | 8-719-109-85 | s | DIODE RD5.1ES-B2 |
| IC1 | 8-759-900-04 | s | IC SN74LS04N |
| IC2 | 1-807-065-11 | s | IC M5L8279P-5 |
| IC3 | 8-759-902-40 | s | IC SN74LS240N |
| IC4 | 8-759-974-07 | s | IC SN7407N |
| IC5 | 8-759-974-07 | s | IC SN7407N |
| IC6 | 8-759-902-40 | s | IC SN74LS240N |
| IC7 | 8-759-974-07 | s | IC SN7407N |
| IC8 | 8-759-600-86 | s | IC M5L8255AP-5 |
| IC9 | 8-759-902-40 | s | IC SN74LS240N |
| IC10 | 8-759-974-07 | s | IC SN7407N |
| IC11 | 8-759-600-86 | s | IC M5L8255AP-5 |
| IC12 | 8-759-902-40 | s | IC SN74LS240N |
| IC13 | 8-759-974-07 | s | IC SN7407N |
| IC14 | 8-759-974-06 | s | IC SN7406N |
| IC15 | 8-759-974-07 | s | IC SN7407N |
| IC16 | 8-759-974-06 | s | IC SN7406N |
| IC17 | 8-759-902-40 | s | IC SN74LS240N |
| IC18 | 8-759-974-06 | s | IC SN7406N |
| IC19 | 8-759-600-86 | s | IC M5L8255AP-5 |
| IC20 | 8-759-902-40 | s | IC SN74LS240N |
| IC21 | 8-759-900-04 | s | IC SN74LS04N |
| IC22 | 8-759-902-40 | s | IC SN74LS240N |
| IC23 | 8-759-900-04 | s | IC SN74LS04N |
| IC24 | 8-759-903-93 | s | IC SN74LS393N |
| IC25 | 8-759-600-86 | s | IC M5L8255AP-5 |
| IC26 | 8-759-900-10 | s | IC SN74LS10N |
| IC27 | 8-759-900-10 | s | IC SN74LS10N |
| IC28 | 8-759-131-11 | s | IC UPC311C |
| Q1 | 8-729-301-42 | s | TRANSISTOR 2SD1135-C |
| Q2 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| Q3 | 8-729-119-78 | s | TRANSISTOR 2SC2603-E |
| R1 | 1-216-377-11 | s | METAL 4.7 5% 2W |
| RB1 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB2 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB3 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB4 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB5 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB6 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB7 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| RB8 | 1-231-407-00 | s | RESISTOR BLOCK 2.2K |
| RB9 | 1-231-407-00 | s | RESISTOR BLOCK 2.2K |
| RB10 | 1-231-407-00 | s | RESISTOR BLOCK 2.2K |
| RB11 | 1-231-410-00 | s | RESISTOR BLOCK 10Kx8 |
| SW2 | 1-553-252-00 | s | SWITCH, DIGITAL |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

## (SYI BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| SW3 | 1-570-598-11 | s | SWITCH, DIP 4-CKT |

## TS-1 BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q1 | 8-729-206-01 | s | TRANSISTOR TPS601 |

## TS-2 BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| CN1 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| D1 | 1-807-051-11 | s | DIODE TLN101 |

VP-MM01(PB)BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-232-A | o | COMPLETE PCB, VP-MM01 |
| C30 | 1-164-031-11 | s | CERAMIC 33PF 5% 50V |
| C001 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C002 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C003 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C004 | 1-162-722-11 | s | CERAMIC 330PF 1% 50V |
| C005 | 1-162-722-11 | s | CERAMIC 330PF 1% 50V |
| C006 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C007 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C008 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C011 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C012 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C013 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C014 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C015 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C016 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C017 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C018 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C023 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C024 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C025 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C026 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C027 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C028 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C031 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C032 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C033 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C034 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C035 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C038 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C039 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C041 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C044 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| CN1 | 1-560-303-00 | o | CONNECTOR, IL 6P, MALE |
| CN2 | 1-564-007-11 | o | CONNECTOR, 8P, MALE |
| CN3 | 1-564-009-11 | o | CONNECTOR, 10P, MALE |
| CN6 | 1-564-004-11 | o | CONNECTOR, 5P, MALE |
| D001 | 8-719-912-20 | s | DIODE 1SS120 |
| D002 | 8-719-912-20 | s | DIODE 1SS120 |
| IC001 | 8-752-030-66 | s | IC CXA1077M |
| IC002 | 8-759-140-53 | s | IC UPD4053BC |
| IC003 | 8-759-701-75 | s | IC NJM7805FA |
| Q001 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q002 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q003 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q004 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q005 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q006 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q008 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q010 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q011 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q016 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q017 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q018 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q019 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q020 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

(VP-MM01(PB)BOARD)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R001 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R002 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R003 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R004 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R005 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R006 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R007 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R008 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R009 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R010 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R011 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R012 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R013 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R014 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R015 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R016 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R017 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R018 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R019 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R020 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R021 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R023 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R024 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R025 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R026 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R039 | 1-249-397-11 | s | CARBON 22 5% 1/4W |
| R040 | 1-249-397-11 | s | CARBON 22 5% 1/4W |
| R041 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R042 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R043 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R044 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R045 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R046 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R047 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R048 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R049 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R050 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R051 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R052 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R053 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R054 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R055 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R056 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R057 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R058 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R059 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R060 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R061 | 1-249-397-11 | s | CARBON 22 5% 1/4W |
| R062 | 1-249-397-11 | s | CARBON 22 5% 1/4W |
| R075 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R076 | 1-247-816-11 | s | CARBON 240 5% 1/4W |
| RY1 | 1-515-716-11 | s | RELAY |
| RY2 | 1-515-716-11 | s | RELAY |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

## VR BOARD

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8616-105-B | o | MOUNTED PCB, VR |
| C8 | 1-102-106-00 | s | CERAMIC 100PF 10% 50V |
| C14 | 1-102-106-00 | s | CERAMIC 100PF 10% 50V |
| CN1 | 1-560-306-00 | o | CONNECTOR, IL 12P, MALE |
| CN2 | 1-560-727-00 | o | CONNECTOR, 26P, MALE |
| CN3 | 1-508-776-00 | o | PIN, CONNECTOR, 3P (WITH LOCK) |
| CN4 | 1-560-306-00 | o | CONNECTOR, IL 12P, MALE |
| CN5 | 1-560-301-00 | o | CONNECTOR, IL 4P, MALE |
| CN6 | 1-560-306-00 | o | CONNECTOR, IL 12P, MALE |
| CN7 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN8 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN9 | 1-560-300-00 | o | CONNECTOR, IL 3P, MALE |
| CN10 | 1-560-299-00 | o | CONNECTOR, IL 2P, MALE |
| CN11 | 1-560-299-00 | o | CONNECTOR, IL 2P, MALE |
| IC1 | 8-759-145-58 | s | IC RC4558P |
| IC2 | 8-759-145-58 | s | IC RC4558P |
| IC3 | 8-759-145-58 | s | IC RC4558P |
| IC4 | 8-759-145-58 | s | IC RC4558P |
| J1 | 1-507-552-00 | s | JACK, PHONE |
| R10 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R14 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| RV1 | 1-237-518-21 | s | RES, VAR 10K |
| RV2 | 1-237-518-21 | s | RES, VAR 10K |
| RV3 | 1-237-518-21 | s | RES, VAR 10K |
| RV4 | 1-237-518-21 | s | RES, VAR 10K |
| RV5 | 1-228-550-00 | s | RES, VAR 10K/10K |
| SW1 | 1-570-186-11 | s | SWITCH, TOGGLE |
| SW2 | 1-570-186-11 | s | SWITCH, TOGGLE |
| T1 | 1-427-284-00 | s | TRANSFORMER, OUTPUT |
| T2 | 1-427-284-00 | s | TRANSFORMER, OUTPUT |
| VR1 | 1-228-548-00 | s | RES, VAR 10K (WITH SW) |
| VR2 | 1-228-548-00 | s | RES, VAR 10K (WITH SW) |

## YD-MM01(YDE)BORAD:MMV800/800-A/802/802-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-207-A | o | COMPLETE PCB, YD-MM01:MMV800 |
| | A-8615-256-A | o | COMPLETE PCB, YD-MM01:MMV802 |
| C3 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C7 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C14 | 1-162-888-21 | s | CERAMIC 560PF 5% 50V:MMV802 |
| C15 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V:MMV802 |
| C26 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C31 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C33 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C50 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C54 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C56 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C68 | 1-164-033-51 | s | CERAMIC 39PF 5% 50V:MMV802 |
| C001 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C004 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C006 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C008 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C009 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C010 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C011 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C012 | 1-162-718-11 | s | CERAMIC 220PF 1% 50V |
| C013 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C016 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C017 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C018 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C019 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C020 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C021 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C022 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C023 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C024 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C028 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C029 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C030 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C032 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C034 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C035 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C036 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C037 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C038 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C039 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C040 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C041 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C042 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C043 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C044 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C046 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C047 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C048 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C049 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C051 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C052 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C053 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C055 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C057 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C060 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C061 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C062 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(YD-MM01(YDE)BORAD:MMV800/800-A/802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C063 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C064 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C065 | 1-162-888-11 | s | CERAMIC 560PF 5% 50V |
| C068 | 1-162-722-11 | s | CERAMIC 330PF 1% 50V:MMV800 |
| C201 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C202 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V:MMV800 |
| C202 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V:MMV802 |
| C203 | 1-126-163-11 | s | ELECT 4.7uF 20% 50V |
| C204 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C206 | 1-162-718-11 | s | CERAMIC 220PF 1% 50V |
| C207 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C209 | 1-104-591-11 | s | MICA 660PF 0.25% 100V |
| C211 | 1-164-027-11 | s | CERAMIC 22PF 5% 50V:MMV800 |
| C211 | 1-102-527-61 | s | CERAMIC 82PF 5% 50V:MMV802 |
| C212 | 1-164-031-11 | s | CERAMIC 33PF 5% 50V |
| C213 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C214 | 1-102-527-11 | s | CERAMIC 82PF 5% 50V |
| C215 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C216 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C217 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C218 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C219 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V:MMV800 |
| C219 | 1-164-023-51 | s | CERAMIC 18PF 5% 50V:MMV802 |
| C220 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C221 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C222 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C223 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C224 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C225 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C230 | 1-124-589-11 | s | ELECT 47uF 20% 50V:MMV802 |
| C233 | 1-124-589-11 | s | ELECT 47uF 20% 50V:MMV802 |
| C237 | 1-124-589-11 | s | ELECT 47uF 20% 50V:MMV802 |
| C238 | 1-164-015-51 | s | CERAMIC 7PF 0.5PF 50V:MMV802 |
| C245 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C249 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C251 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V:MMV800 |
| C251 | 1-164-031-51 | s | CERAMIC 33PF 5% 50V:MMV802 |
| C252 | 1-102-527-11 | s | CERAMIC 82PF 5% 50V:MMV800 |
| C252 | 1-164-031-51 | s | CERAMIC 33PF 5% 50V:MMV802 |
| C253 | 1-162-716-11 | s | CERAMIC 180PF 1% 50V:MMV800 |
| C253 | 1-164-048-11 | s | CERAMIC 12PF 5% 50V:MMV802 |
| C254 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C255 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C256 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C258 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C259 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C260 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C261 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C262 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C263 | 1-136-169-00 | s | MYLAR 0.22uF 5% 50V |
| C264 | 1-162-722-11 | s | CERAMIC 330PF 1% 50V |
| C265 | 1-162-724-11 | s | CERAMIC 390PF 1% 50V |
| C266 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C267 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C268 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C269 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C270 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C271 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C272 | 1-124-589-11 | s | ELECT 47uF 20% 16V |

(YD-MM01(YDE)BORAD:MMV800/800-A/802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C273 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C274 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C275 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C276 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C277 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C278 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C279 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V:MMV802 |
| C280 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C281 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C282 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V:MMV802 |
| C284 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C285 | 1-124-589-11 | s | ELECT 47uF 20% 16V:MMV802 |
| C286 | 1-124-589-11 | s | ELECT 47uF 20% 16V:MMV800 |
| C287 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C288 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C289 | 1-101-884-00 | s | CERAMIC 56PF 5% 50V:MMV800 |
| C289 | 1-164-035-51 | s | CERAMIC 47PF 5% 50V:MMV802 |
| C401 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C403 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C404 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C406 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C407 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C408 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C409 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C410 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C411 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C412 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C413 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C414 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C415 | 1-124-360-00 | s | ELECT 1000uF 20% 16V |
| C416 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C417 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C418 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C419 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C420 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C421 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C422 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C423 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C424 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C425 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C426 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C428 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C429 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C430 | 1-124-360-00 | s | ELECT 1000uF 20% 16V |
| C431 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C434 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C435 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C438 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C439 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C442 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C443 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C446 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| D1 | 8-719-912-20 | s | DIODE 1SS120 |
| D3 | 8-719-912-20 | s | DIODE 1SS120 |
| D4 | 8-719-912-20 | s | DIODE 1SS120 |
| D5 | 8-719-912-20 | s | DIODE 1SS120 |
| D202 | 8-719-912-20 | s | DIODE 1SS120:MMV802 |
| D203 | 8-719-912-20 | s | DIODE 1SS120 |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| D401 | 8-719-912-20 | s | DIODE 1SS120 |
| D402 | 1-807-049-21 | s | DIODE LN35GP |
| DL1 | 1-402-807-11 | s | DELAY LINE |
| DL3 | 1-415-828-11 | s | DELAY LINE:MMV802 |
| DL4 | 1-415-828-11 | s | DELAY LINE:MMV802 |
| FL1 | 1-424-338-11 | s | FILTER, NOISE |
| FL3 | 1-402-939-11 | s | FILTER, NOISE |
| FL4 | 1-402-940-11 | s | FILTER, NOISE |
| FL201 | 1-402-940-11 | s | FILTER, NOISE |
| FL202 | 1-424-338-11 | s | FILTER, NOISE:MMV802 |
| FL203 | 1-424-338-11 | s | FILTER, NOISE:MMV800 |
| FL204 | 1-424-338-11 | s | FILTER, NOISE:MMV802 |
| FL205 | 1-424-338-11 | s | FILTER, NOISE |
| FL401 | 1-424-338-11 | s | FILTER, NOISE |
| IC1 | 8-759-711-23 | s | IC NJM2234L |
| IC2 | 1-809-905-11 | s | IC NJM2243L |
| IC3 | 8-759-014-95 | s | IC MC1495L |
| IC4 | 8-759-503-91 | s | IC TL082CP |
| IC5 | 8-759-969-13 | s | IC SN16913P |
| IC6 | 8-759-140-53 | s | IC UPD4053BC |
| IC7 | 8-759-232-03 | s | IC TC74HC02AP |
| IC8 | 8-759-200-01 | s | IC TC4001UBP |
| IC9 | 8-759-345-38 | s | IC HD14538BP |
| IC10 | 8-759-240-40 | s | IC TC4040BP |
| IC201 | 1-809-904-11 | s | IC AN3231FA |
| IC202 | 8-752-340-26 | s | IC CXL5505P:MMV802 |
| IC203 | 8-752-330-16 | s | IC CXL5005P:MMV800 |
| IC204 | 8-759-711-23 | s | IC NJM2234L |
| IC401 | 1-809-905-11 | s | IC NJM2243L |
| IC402 | 1-809-905-11 | s | IC NJM2243L |
| IC403 | 8-759-701-59 | s | IC NJM78M09FA |
| IC404 | 8-759-701-75 | s | IC NJM7805FA |
| IC405 | 8-759-701-87 | s | IC NJM7809FA |
| IC406 | 8-759-701-84 | s | IC NJM7905FA |
| L12 | 1-410-470-11 | s | INDUCTOR 10uH:MMV800 |
| L202 | 1-408-420-00 | s | INDUCTOR 82UH:MMV802 |
| L207 | 1-410-470-11 | s | INDUCTOR 10uH:MMV800 |
| L207 | 1-410-471-11 | s | INDUCTOR 12UH:MMV802 |
| L208 | 1-410-471-11 | s | INDUCTOR 12UH:MMV802 |
| L209 | 1-410-459-11 | s | INDUCTOR 1.2uH:MMV800 |
| L209 | 1-410-471-11 | s | INDUCTOR 12UH:MMV802 |
| L215 | 1-410-478-11 | s | INDUCTOR 47uH:MMV800 |
| L216 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| L217 | 1-249-381-11 | s | CARBON 1 5% 1/4W:MMV802 |
| L405 | 1-412-012-11 | s | INDUCTOR 100UH |
| L406 | 1-412-012-11 | s | INDUCTOR 100UH |
| LPF1 | 1-236-200-11 | s | FILTER, LOW PASS:MMV800 |
| LPF1 | 1-236-911-11 | s | FILTER,LOW NOISE:MMV802 |
| LPF2 | 1-236-200-11 | s | FILTER, LOW PASS:MMV802 |
| Q1 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q4 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q23 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q24 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q25 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q002 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q003 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q005 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

(YD-MM01(YDE)BORAD:MMV800/800-A/802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q008 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q009 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q010 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q011 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q012 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q013 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q014 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q015 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q016 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q017 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q018 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q019 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q020 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q021 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q022 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q026 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q027 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q201 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q202 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q203 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q204 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q205 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q206 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q207 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q208 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q209 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q210 | 8-729-900-36 | s | TRANSISTOR DTC124ES:MMV802 |
| Q211 | 8-729-900-63 | s | TRANSISTOR DTA124ES:MMV802 |
| Q212 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q213 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q214 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q215 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q216 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q217 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q218 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q219 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q220 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E:MMV802 |
| Q221 | 8-729-119-76 | s | TRANSISTOR 2SA1115P:MMV802 |
| Q222 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E:MMV802 |
| Q223 | 8-729-119-76 | s | TRANSISTOR 2SA1115P:MMV802 |
| Q401 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q402 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q403 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q404 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q405 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q406 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q407 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q408 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q409 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q410 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q411 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| R1 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R2 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R3 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R4 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R5 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R7 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R8 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R9 | 1-249-399-11 | s | CARBON 33 5% 1/4W |
| R10 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R15 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R20 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R21 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R22 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R23 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R24 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R25 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R26 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R27 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R28 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R29 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R30 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R31 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R32 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R33 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R34 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R35 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R36 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R37 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R38 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R39 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R40 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R41 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R42 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R43 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R44 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R45 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R46 | 1-247-807-31 | s | CARBON 100 5% 1/4W:MMV802 |
| R47 | 1-249-417-11 | s | CARBON 1K 5% 1/4W:MMV802 |
| R48 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W:MMV802 |
| R49 | 1-249-381-11 | s | CARBON 1 5% 1/4W:MMV800 |
| R49 | 1-249-417-11 | s | CARBON 1K 5% 1/4W:MMV802 |
| R50 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R51 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R52 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R53 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R54 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R55 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R56 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R57 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R58 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R59 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R60 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R61 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R62 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R63 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R65 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R66 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R67 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R68 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R69 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R70 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R71 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R72 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R73 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R74 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R75 | 1-249-426-11 | s | CARBON 5.6K 5% 1/4W |

(YD-MM01(YDE)BORAD:MMV800/800-A/802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R76 | 1-249-410-11 | s | CARBON 270 5% 1/4W |
| R77 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R80 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R81 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R82 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R83 | 1-249-424-11 | s | CARBON 3.9K 5% 1/4W |
| R84 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R85 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R86 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R87 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R88 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R89 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R90 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R91 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R92 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R93 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R94 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R95 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R96 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R97 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R98 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R99 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R102 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R103 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R104 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R107 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R108 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R111 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R112 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R116 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R117 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R118 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R119 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R120 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R121 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R202 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R203 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R204 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R205 | 1-249-437-11 | s | CARBON 47K 5% 1/4W |
| R206 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R207 | 1-249-437-11 | s | CARBON 47K 5% 1/4W |
| R208 | 1-247-897-11 | s | CARBON 560K 5% 1/4W |
| R209 | 1-249-424-11 | s | CARBON 3.9K 5% 1/4W |
| R210 | 1-249-416-11 | s | CARBON 820 5% 1/4W |
| R211 | 1-249-416-11 | s | CARBON 820 5% 1/4W |
| R216 | 1-215-430-31 | s | METAL 2.4K 1% 1/4W:MMV802 |
| R217 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R218 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R219 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R220 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R221 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R222 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R223 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R224 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R226 | 1-249-434-11 | s | CARBON 27K 5% 1/4W |
| R227 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R228 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R229 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R230 | 1-249-411-11 | s | CARBON 330 5% 1/4W:MMV800 |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R230 | 1-247-811-31 | s | CARBON 150 5% 1/4W:MMV802 |
| R231 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R233 | 1-249-440-11 | s | CARBON 82K 5% 1/4W:MMV802 |
| R234 | 1-249-417-11 | s | CARBON 1K 5% 1/4W:MMV802 |
| R236 | 1-249-438-11 | s | CARBON 56K 5% 1/4W:MMV800 |
| R237 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R238 | 1-249-416-11 | s | CARBON 820 5% 1/4W:MMV800 |
| R238 | 1-249-413-11 | s | CARBON 470 5% 1/4W:MMV802 |
| R239 | 1-249-412-11 | s | CARBON 390 5% 1/4W:MMV800 |
| R240 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R241 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R242 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R243 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R246 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R247 | 1-247-855-31 | s | CARBON 10K 5% 1/4W:MMV802 |
| R248 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R249 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R253 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R254 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R255 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R256 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R257 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R258 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R259 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R260 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R261 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R264 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R266 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R271 | 1-247-807-31 | s | CARBON 100 5% 1/4W:MMV802 |
| R272 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W:MMV802 |
| R275 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W:MMV802 |
| R290 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R291 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R292 | 1-249-417-11 | s | CARBON 1K 5% 1/4W:MMV802 |
| R293 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W:MMV802 |
| R294 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R295 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R296 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R299 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R300 | 1-247-887-00 | s | CARBON 220K 5% 1/4W:MMV802 |
| R301 | 1-249-429-11 | s | CARBON 10K 5% 1/4W:MMV800 |
| R302 | 1-249-433-11 | s | CARBON 22K 5% 1/4W:MMV802 |
| R303 | 1-249-437-11 | s | CARBON 47K 5% 1/4W:MMV802 |
| R304 | 1-249-381-11 | s | CARBON 1 5% 1/4W:MMV802 |
| R305 | 1-249-381-11 | s | CARBON 1 5% 1/4W:MMV800 |
| R305 | 1-249-417-31 | s | CARBON 1K 5% 1/4W:MMV802 |
| R401 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R402 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R403 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R404 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R405 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R406 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R407 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R408 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R409 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R410 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R411 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R412 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R414 | 1-249-413-11 | s | CARBON 470 5% 1/4W |

(YD-MM01(YDE)BORAD:MMV800/800-A/802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R415 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R416 | 1-249-416-11 | s | CARBON 820 5% 1/4W |
| R417 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R418 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R419 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R420 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R421 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R422 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R423 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R424 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R425 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R426 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R427 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R429 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R430 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R431 | 1-247-811-31 | s | CARBON 150 5% 1/4W:MMV802 |
| RV5 | 1-237-515-21 | s | RES, VAR 1K |
| RV201 | 1-237-516-21 | s | RES, VAR 2K |
| RV203 | 1-237-515-21 | s | RES, VAR 1K:MMV802 |
| RV401 | 1-237-516-21 | s | RES, VAR 2K |
| RV402 | 1-237-515-21 | s | RES, VAR 1K:MMV800 |
| RV403 | 1-237-516-21 | s | RES, VAR 2K |
| S1 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S3 | 1-553-441-00 | s | SWITCH, TOGGLE |
| X1 | 1-567-479-11 | s | OSCILLATOR, CRYSTAL:MMV800 |
| X1 | 1-577-264-11 | s | OSCILLATOR, CRYSTAL:MMV802 |
| X2 | 1-567-481-11 | s | OSCILLATOR, CRYSTAL:MMV800 |
| X2 | 1-567-400-11 | s | OSCILLATOR, CRYSTAL:MMV802 |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

YD-MM01(YDE)BOARD:MMV810/810-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-242-A | o | COMPLETE PCB, YD-MM01:MMV810 |
| C3 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C7 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C26 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C31 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C33 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C50 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C54 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C56 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C001 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C004 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C006 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C008 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C009 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C010 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C011 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C012 | 1-162-718-11 | s | CERAMIC 220PF 1% 50V |
| C013 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C016 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C017 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C018 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C019 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C020 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C021 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C022 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C023 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C024 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C028 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C029 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C030 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C032 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C034 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C035 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C036 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C037 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C038 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C039 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C040 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C041 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C042 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C043 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C044 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C046 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C047 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C048 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C049 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C051 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C052 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C053 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C055 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C057 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C060 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C061 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C062 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C063 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C064 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C065 | 1-162-888-11 | s | CERAMIC 560PF 5% 50V |
| C068 | 1-162-722-11 | s | CERAMIC 330PF 1% 50V |



| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C201 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C202 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C203 | 1-126-163-11 | s | ELECT 4.7uF 20% 50V |
| C204 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C206 | 1-162-718-11 | s | CERAMIC 220PF 1% 50V |
| C207 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C209 | 1-104-591-11 | s | MICA 660PF 0.25% 100V |
| C211 | 1-102-527-11 | s | CERAMIC 82PF 5% 50V |
| C212 | 1-164-031-11 | s | CERAMIC 33PF 5% 50V |
| C213 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C214 | 1-102-527-11 | s | CERAMIC 82PF 5% 50V |
| C215 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C216 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C217 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C218 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C219 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C220 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C221 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C222 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C223 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C224 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C225 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C245 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C249 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C251 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C252 | 1-102-527-11 | s | CERAMIC 82PF 5% 50V |
| C253 | 1-162-716-11 | s | CERAMIC 180PF 1% 50V |
| C254 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C255 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C256 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C258 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C259 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C260 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C261 | 1-126-514-11 | s | ELECT 22uF 20% 16V |
| C262 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C263 | 1-136-169-00 | s | MYLAR 0.22uF 5% 50V |
| C264 | 1-162-722-11 | s | CERAMIC 330PF 1% 50V |
| C265 | 1-162-724-11 | s | CERAMIC 390PF 1% 50V |
| C266 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C267 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C268 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C269 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C270 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C271 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C272 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C273 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C274 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C275 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C276 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C277 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C278 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C280 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C281 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C284 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C286 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C287 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C288 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C289 | 1-101-884-00 | s | CERAMIC 56PF 5% 50V |
| C401 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(YD-MM01(YDE)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C403 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C404 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C406 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C407 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C408 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C409 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C410 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C411 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C412 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C413 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C414 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C415 | 1-124-360-00 | s | ELECT 1000uF 20% 16V |
| C416 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C417 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C418 | 1-124-282-00 | s | ELECT, NONPOLAR 22uF 20% 25V |
| C419 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C420 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C421 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C422 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C423 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C424 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C425 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C426 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C428 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C429 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C430 | 1-124-360-00 | s | ELECT 1000uF 20% 16V |
| C431 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C434 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C435 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C438 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C439 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C442 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C443 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C446 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| D1 | 8-719-912-20 | s | DIODE 1SS120 |
| D2 | 8-719-912-20 | s | DIODE 1SS120 |
| D3 | 8-719-912-20 | s | DIODE 1SS120 |
| D4 | 8-719-912-20 | s | DIODE 1SS120 |
| D5 | 8-719-912-20 | s | DIODE 1SS120 |
| D203 | 8-719-912-20 | s | DIODE 1SS120 |
| D401 | 8-719-912-20 | s | DIODE 1SS120 |
| D402 | 1-807-049-21 | s | DIODE LN35GP |
| DL1 | 1-402-807-11 | s | DELAY LINE |
| FL1 | 1-424-338-11 | s | FILTER, NOISE |
| FL2 | 1-402-939-11 | s | FILTER, NOISE |
| FL3 | 1-402-939-11 | s | FILTER, NOISE |
| FL4 | 1-402-940-11 | s | FILTER, NOISE |
| FL201 | 1-402-940-11 | s | FILTER, NOISE |
| FL203 | 1-424-338-11 | s | FILTER, NOISE |
| FL205 | 1-424-338-11 | s | FILTER, NOISE |
| FL401 | 1-424-338-11 | s | FILTER, NOISE |
| IC1 | 8-759-711-23 | s | IC NJM2234L |
| IC2 | 1-809-905-11 | s | IC NJM2243L |
| IC3 | 8-759-014-95 | s | IC MC1495L |
| IC4 | 8-759-503-91 | s | IC TL082CP |
| IC5 | 8-759-969-13 | s | IC SN16913P |
| IC6 | 8-759-140-53 | s | IC UPD4053BC |

(YD-MM01(YDE)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC7 | 8-759-232-03 | s | IC TC74HC02AP |
| IC8 | 8-759-200-01 | s | IC TC4001UBP |
| IC9 | 8-759-345-38 | s | IC HD14538BP |
| IC10 | 8-759-240-40 | s | IC TC4040BP |
| IC201 | 1-809-904-11 | s | IC AN3231FA |
| IC203 | 8-752-330-16 | s | IC CXL5005P |
| IC204 | 8-759-711-23 | s | IC NJM2234L |
| IC401 | 1-809-905-11 | s | IC NJM2243L |
| IC402 | 1-809-905-11 | s | IC NJM2243L |
| IC403 | 8-759-520-06 | s | IC NJM7809FA |
| IC404 | 8-759-701-75 | s | IC NJM7805FA |
| IC405 | 8-759-701-87 | s | IC NJM7909FA |
| IC406 | 8-759-701-84 | s | IC NJM7905FA |
| L12 | 1-410-470-11 | s | INDUCTOR 10uH |
| L207 | 1-410-470-11 | s | INDUCTOR 10uH |
| L209 | 1-410-459-11 | s | INDUCTOR 1.2uH |
| L215 | 1-410-478-11 | s | INDUCTOR 47uH |
| L216 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| L405 | 1-412-012-11 | s | INDUCTOR 100UH |
| L406 | 1-412-012-11 | s | INDUCTOR 100UH |
| LPF1 | 1-236-200-11 | s | FILTER, LOW PASS |
| Q1 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q4 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q23 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q24 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q25 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q002 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q003 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q005 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q006 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q007 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q010 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q011 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q012 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q013 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q014 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q015 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q016 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q017 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q018 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q019 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q020 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q021 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q022 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q026 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q027 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q201 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q202 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q203 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q204 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q205 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q206 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q207 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q208 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q209 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q212 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q213 | 8-729-900-63 | s | TRANSISTOR DTA124ES |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(YD-MM01(YDE)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q214 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q215 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q216 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q217 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q218 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q219 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q224 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q225 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q226 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q401 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q402 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q403 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q404 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q405 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q406 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q407 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q408 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q409 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q410 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q411 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| R1 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R2 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R3 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R4 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R5 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R7 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R8 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R9 | 1-249-399-11 | s | CARBON 33 5% 1/4W |
| R10 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R11 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R12 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R13 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R14 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R15 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R16 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R17 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R18 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R19 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R28 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R29 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R30 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R31 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R32 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R33 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R34 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R35 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R36 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R37 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R38 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R39 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R40 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R41 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R42 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R43 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R44 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R45 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R49 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R50 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R51 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |

(YD-MM01(YDE)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R52 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R53 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R54 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R55 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R56 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R57 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R58 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R59 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R60 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R61 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R62 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R63 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R65 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R66 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R67 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R68 | 1-249-423-11 | s | CARBON 3.3K 5% 1/4W |
| R69 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R70 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R71 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R72 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R73 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R74 | 1-249-415-11 | s | CARBON 680 5% 1/4W |
| R75 | 1-249-426-11 | s | CARBON 5.6K 5% 1/4W |
| R76 | 1-249-410-11 | s | CARBON 270 5% 1/4W |
| R77 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R80 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R81 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R82 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R83 | 1-249-424-11 | s | CARBON 3.9K 5% 1/4W |
| R84 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R85 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R86 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R87 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R88 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R89 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R90 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R91 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R92 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R93 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R94 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R95 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R96 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R97 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R98 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R99 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R102 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R103 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R104 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R107 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R108 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R111 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R112 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R116 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R117 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R118 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R119 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R120 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R121 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R202 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(YD-MM01(YDE)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R203 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R204 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R205 | 1-249-437-11 | s | CARBON 47K 5% 1/4W |
| R206 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R207 | 1-249-437-11 | s | CARBON 47K 5% 1/4W |
| R208 | 1-247-897-11 | s | CARBON 560K 5% 1/4W |
| R209 | 1-249-424-11 | s | CARBON 3.9K 5% 1/4W |
| R210 | 1-249-416-11 | s | CARBON 820 5% 1/4W |
| R211 | 1-249-416-11 | s | CARBON 820 5% 1/4W |
| R217 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R218 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R219 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R220 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R221 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R222 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R223 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R224 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R226 | 1-249-434-11 | s | CARBON 27K 5% 1/4W |
| R227 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R228 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R229 | 1-249-409-11 | s | CARBON 220 5% 1/4W |
| R230 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R231 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R236 | 1-249-438-11 | s | CARBON 56K 5% 1/4W |
| R237 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R238 | 1-249-416-11 | s | CARBON 820 5% 1/4W |
| R239 | 1-249-412-11 | s | CARBON 390 5% 1/4W |
| R240 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R241 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R242 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R243 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R246 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R248 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R249 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R253 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R254 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R255 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R256 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R257 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R258 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R259 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R260 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R261 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R264 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R266 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R282 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R283 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R285 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R290 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R291 | 1-249-414-11 | s | CARBON 560 5% 1/4W |
| R293 | 1-249-419-11 | s | CARBON 1.5K 5% 1/4W |
| R294 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R295 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R296 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R299 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R301 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R401 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R402 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R403 | 1-249-405-11 | s | CARBON 100 5% 1/4W |

(YD-MM01(YDE)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R404 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R405 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R406 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R407 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R408 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R409 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R410 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R411 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R412 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R414 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R415 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R416 | 1-249-416-11 | s | CARBON 820 5% 1/4W |
| R417 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R418 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R419 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R420 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R421 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R422 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R423 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R424 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R425 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R426 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R427 | 1-249-433-11 | s | CARBON 22K 5% 1/4W |
| R429 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R430 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| RV5 | 1-237-515-21 | s | RES, VAR 1K |
| RV201 | 1-237-516-21 | s | RES, VAR 2K |
| RV204 | 1-237-515-21 | s | RES, VAR 1K |
| RV401 | 1-237-516-21 | s | RES, VAR 2K |
| RV402 | 1-237-515-21 | s | RES, VAR 1K |
| RV403 | 1-237-516-21 | s | RES, VAR 2K |
| S1 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S3 | 1-553-441-00 | s | SWITCH, TOGGLE |
| X1 | 1-567-479-11 | s | OSCILLATOR, CRYSTAL |
| X2 | 1-567-481-11 | s | OSCILLATOR, CRYSTAL |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

YM-MM01(YMD)BOARD:MMV800/800-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-230-A | o | COMPLETE PCB, YM-MM01:MMV800 |
| C001 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C002 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C003 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C004 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C005 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C007 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C011 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C012 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C013 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C014 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C015 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C016 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C018 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C019 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C024 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C025 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C026 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C027 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C029 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C030 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C031 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C032 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C033 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C034 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C037 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C039 | 1-162-722-11 | s | CERAMIC 330PF 1% 50V |
| C040 | 1-162-718-11 | s | CERAMIC 220PF 1% 50V |
| C042 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C043 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C046 | 1-164-012-11 | s | CERAMIC 3PF 0.25PF 50V |
| C047 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C048 | 1-126-096-11 | s | ELECT 10uF 20% 35V |
| C050 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C052 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C053 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C055 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C056 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C057 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C058 | 1-164-016-51 | s | CERAMIC 7PF 0.5PF 50V |
| C059 | 1-104-583-11 | s | MICA 180PF 0.25% 100V |
| C060 | 1-164-016-51 | s | CERAMIC 7PF 0.5PF 50V |
| C061 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C062 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C063 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C064 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C066 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C067 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C070 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C071 | 1-162-716-11 | s | CERAMIC 180PF 1% 50V |
| C072 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C073 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C078 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C080 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C081 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C082 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C083 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C084 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |

(YM-MM01(YMD)BOARD:MMV800/800-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C086 | 1-102-525-11 | s | CERAMIC 68PF 5% 50V |
| C087 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C088 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C092 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C094 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C095 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C096 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C097 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C098 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C099 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C100 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C101 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C102 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C103 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C104 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C105 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C106 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C107 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C109 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C110 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C111 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C112 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C115 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C116 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C119 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C120 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C123 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C124 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C127 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C128 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C129 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C130 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C133 | 1-162-724-11 | s | CERAMIC 390PF 1% 50V |
| C134 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C135 | 1-164-027-11 | s | CERAMIC 22PF 5% 50V |
| C136 | 1-164-023-51 | s | CERAMIC 15PF 5% 50V |
| C137 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C138 | 1-164-014-51 | s | CERAMIC 5PF 0.25PF 50V |
| C139 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C140 | 1-164-031-11 | s | CERAMIC 33PF 5% 50V |
| C142 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| D001 | 8-719-912-20 | s | DIODE 1SS120 |
| D002 | 8-719-912-20 | s | DIODE 1SS120 |
| D004 | 8-719-820-12 | s | LED TLR214, RED |
| D005 | 8-719-912-20 | s | DIODE 1SS120 |
| D006 | 8-719-912-20 | s | DIODE 1SS120 |
| D007 | 8-719-912-20 | s | DIODE 1SS120 |
| D009 | 8-719-820-12 | s | LED TLR214, RED |
| D010 | 8-719-912-20 | s | DIODE 1SS120 |
| D013 | 8-719-912-20 | s | DIODE 1SS120 |
| D014 | 8-719-400-35 | s | LED LN35BP, GRN |
| D015 | 8-719-912-20 | s | DIODE 1SS120 |
| FL1 | 1-424-338-11 | s | FILTER, NOISE |
| IC01 | 8-759-503-91 | s | IC TL082CP |
| IC02 | 8-759-140-53 | s | IC UPD4053BC |
| IC03 | 1-809-903-11 | s | IC NJM2245L |
| IC04 | 8-752-036-77 | s | IC CXA1179N |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(YM-MM01(YMD)BOARD:MMV800/800-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| IC05 | 8-759-902-21 | s | IC SN74LS221N |
| IC06 | 8-759-001-16 | s | IC MC10116L |
| IC07 | 8-759-711-23 | s | IC NJM2234L |
| IC08 | 8-759-701-59 | s | IC NJM78M09FA |
| IC09 | 8-759-701-75 | s | IC NJM7805FA |
| IC10 | 8-759-701-87 | s | IC NJM7909FA |
| IC11 | 8-759-701-84 | s | IC NJM7905FA |
| IC12 | 8-759-902-21 | s | IC SN74LS221N |
| IC13 | 8-759-503-91 | s | IC TL082CP |
| L5 | 1-410-478-11 | s | INDUCTOR 47uH |
| L6 | 1-410-478-11 | s | INDUCTOR 47uH |
| L9 | 1-410-478-11 | s | INDUCTOR 47uH |
| L25 | 1-412-012-11 | s | INDUCTOR 100UH |
| L26 | 1-412-012-11 | s | INDUCTOR 100UH |
| L31 | 1-410-478-11 | s | INDUCTOR 47uH |
| L33 | 1-410-478-11 | s | INDUCTOR 47uH |
| LPF1 | 1-239-569-11 | s | FILTER, LOW PASS |
| LPF3 | 1-239-570-11 | s | FILTER, LOW PASS |
| Q001 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q002 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q003 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q004 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q005 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q010 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q011 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q012 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q013 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q015 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q016 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q017 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q018 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q019 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q020 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q021 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q023 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q024 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q025 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q026 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q027 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q031 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q032 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q034 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q035 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q036 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q037 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q038 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q039 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q040 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q041 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q042 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q043 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q045 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q047 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q048 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q049 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q050 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q051 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q052 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

(YM-MM01(YMD)BOARD:MMV800/800-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q054 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| R68 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R001 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R002 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R004 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R005 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R006 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R008 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R009 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R010 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R011 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R012 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R013 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R014 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R016 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R022 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R031 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R032 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R033 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R040 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R041 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R043 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R045 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R047 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R048 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R055 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R059 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R060 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R063 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R065 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R066 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R067 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R074 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R075 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R076 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R077 | 1-249-436-11 | s | CARBON 39K 5% 1/4W |
| R095 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R096 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R099 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R100 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R101 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R102 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R103 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R109 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R110 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R111 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R121 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R122 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R123 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R124 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R125 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R126 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R127 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R128 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R129 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R130 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R131 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R132 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

(YM-MM01(YMD)BOARD:MMV800/800-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R133 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R134 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R136 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R147 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R148 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R149 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R150 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R151 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R152 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R153 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R154 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R155 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R156 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R157 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R158 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R159 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R160 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R161 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R162 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R163 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R164 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R165 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R166 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R171 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R172 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R174 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R176 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R179 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R180 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R181 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R182 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R187 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R188 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R191 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R192 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R193 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R194 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R197 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R199 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R200 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R201 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R204 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R205 | 1-249-431-11 | s | CARBON 15K 5% 1/4W |
| R206 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R207 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R211 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R214 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R217 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R418 | 1-247-847-11 | s | CARBON 4.7K 5% 1/4W |
| RB01 | 1-245-033-81 | s | RESISTOR BLOCK 10Kx4 |
| RV01 | 1-237-516-21 | s | RES, VAR 2K |
| RV03 | 1-237-516-21 | s | RES, VAR 2K |
| RV04 | 1-237-518-21 | s | RES, VAR 10K |
| RV05 | 1-237-518-21 | s | RES, VAR 10K |
| RV06 | 1-237-517-21 | s | RES, VAR 5K |
| RV07 | 1-237-517-21 | s | RES, VAR 5K |
| S1 | 1-553-441-00 | s | SWITCH, TOGGLE |

(YM-MM01(YMD)BOARD:MMV800/800-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| S2 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S5 | 1-571-146-11 | s | SWITCH, ROTARY |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

YM-MM01(YMD)BOARD:MMV810/810-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-244-A | o | COMPLETE PCB, YM-MM01:MMV810 |
| C001 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C002 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C003 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C004 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C005 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C007 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C011 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C012 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C013 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C014 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C015 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C016 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C018 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C019 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C024 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C025 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C026 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C027 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C029 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C030 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C031 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C032 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C033 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C034 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C037 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C039 | 1-162-722-11 | s | CERAMIC 330PF 1% 50V |
| C040 | 1-162-718-11 | s | CERAMIC 220PF 1% 50V |
| C042 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C043 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C046 | 1-164-012-11 | s | CERAMIC 3PF 0.25PF 50V |
| C047 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C048 | 1-126-096-11 | s | ELECT 10uF 20% 35V |
| C050 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C052 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C053 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C055 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C056 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C057 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C058 | 1-164-031-11 | s | CERAMIC 33PF 5% 50V |
| C059 | 1-104-583-11 | s | MICA 180PF 0.25% 100V |
| C060 | 1-164-016-51 | s | CERAMIC 7PF 0.5PF 50V |
| C061 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C062 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C063 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C064 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C066 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C067 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C070 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |
| C071 | 1-162-716-11 | s | CERAMIC 180PF 1% 50V |
| C072 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C073 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C074 | 1-164-028-51 | s | CERAMIC 22PF 5% 50V |
| C078 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C080 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C081 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C082 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C083 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |

(YM-MM01(YMD)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C084 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C086 | 1-102-525-11 | s | CERAMIC 68PF 5% 50V |
| C087 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C088 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C092 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C094 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C095 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C096 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C097 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C098 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C099 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C100 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C101 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C102 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C103 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C104 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C105 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C106 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C107 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C109 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C110 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C111 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C112 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C115 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C116 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C119 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C120 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C123 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C124 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C127 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C128 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C129 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C130 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C133 | 1-162-724-11 | s | CERAMIC 390PF 1% 50V |
| C134 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C135 | 1-164-027-11 | s | CERAMIC 22PF 5% 50V |
| C136 | 1-164-023-51 | s | CERAMIC 15PF 5% 50V |
| C137 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C138 | 1-164-014-51 | s | CERAMIC 5PF 0.25PF 50V |
| C139 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C140 | 1-164-031-11 | s | CERAMIC 33PF 5% 50V |
| C142 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C301 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C302 | 1-104-814-11 | s | MICA 330PF 0.25% 100V |
| C303 | 1-164-031-11 | s | CERAMIC 33PF 5% 50V |
| C304 | 1-164-027-11 | s | CERAMIC 22PF 5% 50V |
| C305 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C306 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C307 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C308 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C309 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C310 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C311 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C312 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| D001 | 8-719-912-20 | s | DIODE 1SS120 |
| D002 | 8-719-912-20 | s | DIODE 1SS120 |
| D004 | 8-719-800-60 | s | LED TLR214, RED |
| D005 | 8-719-912-20 | s | DIODE 1SS120 |
| D006 | 8-719-912-20 | s | DIODE 1SS120 |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(YM-MM01(YMD)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| D007 | 8-719-912-20 | s | DIODE 1SS120 |
| D009 | 8-719-800-60 | s | LED TLR214, RED |
| D010 | 8-719-912-20 | s | DIODE 1SS120 |
| D011 | 8-719-912-20 | s | DIODE 1SS120 |
| D012 | 8-719-400-35 | s | LED LN35BP, GRN |
| D013 | 8-719-912-20 | s | DIODE 1SS120 |
| D014 | 8-719-400-35 | s | LED LN35BP, GRN |
| D015 | 8-719-912-20 | s | DIODE 1SS120 |
| D301 | 8-719-109-74 | s | DIODE RD4.3ES-B1 |
| D302 | 8-719-104-10 | s | DIODE 1SS99 |
| D303 | 8-719-104-10 | s | DIODE 1SS99 |
| FL1 | 1-424-338-11 | s | FILTER, NOISE |
| IC01 | 8-759-503-91 | s | IC TL082CP |
| IC02 | 8-759-140-53 | s | IC UPD4053BC |
| IC03 | 1-809-903-11 | s | IC NJM2245L |
| IC04 | 8-752-036-77 | s | IC CXA1179N |
| IC05 | 8-759-902-21 | s | IC SN74LS221N |
| IC06 | 8-759-001-16 | s | IC MC10116L |
| IC07 | 8-759-711-23 | s | IC NJM2234L |
| IC08 | 8-759-520-06 | s | IC NJM7809FA |
| IC09 | 8-759-701-75 | s | IC NJM7805FA |
| IC10 | 8-759-701-87 | s | IC NJM7909FA |
| IC11 | 8-759-701-84 | s | IC NJM7905FA |
| IC12 | 8-759-902-21 | s | IC SN74LS221N |
| IC13 | 8-759-503-91 | s | IC TL082CP |
| IC301 | 8-759-711-23 | s | IC NJM2234L |
| L5 | 1-410-478-11 | s | INDUCTOR 47uH |
| L6 | 1-410-478-11 | s | INDUCTOR 47uH |
| L9 | 1-410-478-11 | s | INDUCTOR 47uH |
| L24 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| L25 | 1-412-012-11 | s | INDUCTOR 100UH |
| L26 | 1-412-012-11 | s | INDUCTOR 100UH |
| L31 | 1-410-478-11 | s | INDUCTOR 47uH |
| L33 | 1-410-478-11 | s | INDUCTOR 47uH |
| LPF1 | 1-239-569-11 | s | FILTER, LOW PASS |
| LPF3 | 1-239-570-11 | s | FILTER, LOW PASS |
| Q001 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q002 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q003 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q004 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q005 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q010 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q011 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q012 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q013 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q015 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q016 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q017 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q018 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q019 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q020 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q021 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q023 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q024 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q025 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q026 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

(YM-MM01(YMD)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q027 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q031 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q032 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q034 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q035 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q036 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q037 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q038 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q039 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q040 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q041 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q042 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q043 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q045 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q047 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q048 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q049 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q050 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q051 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q052 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q053 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q054 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q301 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q302 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q303 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q304 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| R001 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R002 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R004 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R005 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R006 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R008 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R009 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R010 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R011 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R012 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R013 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R014 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R016 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R022 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R031 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R032 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R033 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R040 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R041 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R043 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R045 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R047 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R048 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R055 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R059 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R060 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R063 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R065 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R066 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R067 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R068 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R074 | 1-249-405-11 | s | CARBON 100 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(YM-MM01(YMD)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R075 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R076 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R077 | 1-249-436-11 | s | CARBON 39K 5% 1/4W |
| R095 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R096 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R097 | 1-215-384-00 | s | METAL 30 1% 1/4W |
| R099 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R100 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R101 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R102 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R103 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R109 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R110 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R111 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R121 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R122 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R123 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R124 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R125 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R126 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R127 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R128 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R129 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R130 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R131 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R132 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R133 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R134 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R136 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R147 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R148 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R149 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R150 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R151 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R152 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R153 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R154 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R155 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R156 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R157 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R158 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R159 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R160 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R161 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R162 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R163 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R164 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R165 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R166 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R171 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R172 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R174 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R176 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R179 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R180 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R181 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R182 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R187 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R188 | 1-249-405-11 | s | CARBON 100 5% 1/4W |

(YM-MM01(YMD)BOARD:MMV810/810-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R191 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R192 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R193 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R194 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R197 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R199 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R200 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R201 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R204 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R205 | 1-249-431-11 | s | CARBON 15K 5% 1/4W |
| R206 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R207 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R211 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R212 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R213 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R214 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R217 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R301 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R302 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R303 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R305 | 1-215-414-00 | s | METAL 510 1% 1/6W |
| R309 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R310 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R311 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R315 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R316 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R317 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| RB01 | 1-245-033-81 | s | RESISTOR BLOCK 10Kx4 |
| RV01 | 1-237-516-21 | s | RES, VAR 2K |
| RV03 | 1-237-516-21 | s | RES, VAR 2K |
| RV04 | 1-237-518-21 | s | RES, VAR 10K |
| RV05 | 1-237-518-21 | s | RES, VAR 10K |
| RV06 | 1-237-517-21 | s | RES, VAR 5K |
| RV07 | 1-237-517-21 | s | RES, VAR 5K |
| S1 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S2 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S5 | 1-571-146-11 | s | SWITCH, ROTARY |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

YM-MM01(YMD)BOARD:MMV802/802-A

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| | A-8615-253-A | o | COMPLETE PCB, YM-MM01:MMV802 |
| C16 | 1-102-525-11 | s | CERAMIC 68PF 5% 50V |
| C22 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C23 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C28 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C39 | 1-162-718-11 | s | CERAMIC 220PF 5% 50V |
| C52 | 1-162-718-11 | s | CERAMIC 220PF 5% 50V |
| C58 | 1-164-035-11 | s | CERAMIC 47PF 5% 50V |
| C75 | 1-101-361-11 | s | CERAMIC 150PF 5% 50V |
| C76 | 1-162-716-11 | s | CERAMIC 180PF 5% 50V |
| C79 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C86 | 1-101-884-00 | s | CERAMIC 56PF 5% 50V |
| C89 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C91 | 1-101-884-00 | s | CERAMIC 56PF 5% 50V |
| C93 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C001 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C002 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C003 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C004 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C005 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C007 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C011 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C012 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C013 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C014 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C015 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C018 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C019 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C024 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C026 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C027 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C029 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C030 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C031 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C032 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C033 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C034 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C037 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C040 | 1-162-718-11 | s | CERAMIC 220PF 1% 50V |
| C042 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C043 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C046 | 1-164-012-11 | s | CERAMIC 3PF 0.25PF 50V |
| C047 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C048 | 1-126-096-11 | s | ELECT 10uF 20% 35V |
| C050 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C052 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C053 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C055 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C057 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C059 | 1-104-583-11 | s | MICA 180PF 0.25% 100V |
| C060 | 1-164-016-51 | s | CERAMIC 7PF 0.5PF 50V |
| C061 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C062 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C063 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C064 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C066 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C067 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C070 | 1-101-361-00 | s | CERAMIC 150PF 5% 50V |

(YM-MM01(YMD)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C071 | 1-162-716-11 | s | CERAMIC 180PF 1% 50V |
| C072 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C073 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C078 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C080 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C081 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C082 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C083 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C084 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C087 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C088 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C092 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C094 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C095 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C096 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C097 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C098 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C099 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C100 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C101 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C102 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C103 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C104 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C105 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C106 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C107 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C109 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C110 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| C112 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C115 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C116 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C119 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C120 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C123 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C124 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C127 | 1-124-455-00 | s | ELECT 100uF 20% 16V |
| C128 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C129 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C130 | 1-126-301-11 | s | ELECT 1uF 20% 50V |
| C133 | 1-162-724-11 | s | CERAMIC 390PF 1% 50V |
| C134 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C135 | 1-164-027-11 | s | CERAMIC 22PF 5% 50V |
| C136 | 1-164-023-51 | s | CERAMIC 15PF 5% 50V |
| C137 | 1-164-019-11 | s | CERAMIC 10PF 0.5PF 50V |
| C138 | 1-164-014-51 | s | CERAMIC 5PF 0.25PF 50V |
| C139 | 1-161-051-00 | s | CERAMIC 0.01uF 10% 50V |
| C140 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| C141 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C142 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C301 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C302 | 1-107-577-11 | s | MICA 270PF 0.25% 100V |
| C303 | 1-164-025-51 | s | CERAMIC 18PF 5% 50V |
| C304 | 1-164-027-11 | s | CERAMIC 22PF 5% 50V |
| C305 | 1-102-973-00 | s | CERAMIC 100PF 5% 50V |
| C306 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C307 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C308 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C310 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C311 | 1-124-589-11 | s | ELECT 47uF 20% 16V |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(YM-MM01(YMD)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| C312 | 1-124-589-11 | s | ELECT 47uF 20% 16V |
| C401 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C402 | 1-101-884-00 | s | CERAMIC 56PF 5% 50V |
| C403 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C404 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C405 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C406 | 1-161-051-00 | s | CERAMIC 0.01uF 20% 50V |
| C407 | 1-164-019-51 | s | CERAMIC 10PF 0.5PF 50V |
| C408 | 1-164-031-51 | s | CERAMIC 33PF 5% 50V |
| C409 | 1-164-027-51 | s | CERAMIC 22PF 5% 50V |
| C410 | 1-164-027-51 | s | CERAMIC 22PF 5% 50V |
| C411 | 1-164-027-51 | s | CERAMIC 22PF 5% 50V |
| C412 | 1-164-056-11 | s | CERAMIC 27PF 5% 50V |
| D3 | 8-719-912-20 | s | DIODE 1SS120 |
| D001 | 8-719-912-20 | s | DIODE 1SS120 |
| D002 | 8-719-912-20 | s | DIODE 1SS120 |
| D004 | 8-719-820-12 | s | LED TLR214, RED |
| D005 | 8-719-912-20 | s | DIODE 1SS120 |
| D006 | 8-719-912-20 | s | DIODE 1SS120 |
| D007 | 8-719-912-20 | s | DIODE 1SS120 |
| D009 | 8-719-820-12 | s | LED TLR214, RED |
| D010 | 8-719-912-20 | s | DIODE 1SS120 |
| D011 | 8-719-912-20 | s | DIODE 1SS120 |
| D013 | 8-719-912-20 | s | DIODE 1SS120 |
| D014 | 8-719-400-35 | s | LED LN35BP, GRN |
| D015 | 8-719-912-20 | s | DIODE 1SS120 |
| D301 | 8-719-109-74 | s | DIODE RD4.3ESB1 |
| D302 | 8-719-104-10 | s | DIODE 1SS99 |
| D303 | 8-719-104-10 | s | DIODE 1SS99 |
| FL1 | 1-424-338-11 | s | FILTER, NOISE |
| IC01 | 8-759-503-91 | s | IC TL082CP |
| IC02 | 8-759-140-53 | s | IC UPD4053BC |
| IC03 | 1-809-903-11 | s | IC NJM2245L |
| IC04 | 8-752-036-77 | s | IC CXA1179N |
| IC05 | 8-759-902-21 | s | IC SN74LS221N |
| IC06 | 8-759-001-16 | s | IC MC10116L |
| IC07 | 8-759-711-23 | s | IC NJM2234L |
| IC08 | 8-759-701-59 | s | IC NJM78M09FA |
| IC09 | 8-759-701-75 | s | IC NJM7805FA |
| IC10 | 8-759-701-87 | s | IC NJM7909FA |
| IC11 | 8-759-701-84 | s | IC NJM7905FA |
| IC12 | 8-759-902-21 | s | IC SN74LS221N |
| IC13 | 8-759-503-91 | s | IC TL082CP |
| IC301 | 8-759-711-23 | s | IC NJM2234L |
| L5 | 1-410-478-11 | s | INDUCTOR 47uH |
| L6 | 1-410-478-11 | s | INDUCTOR 47uH |
| L24 | 1-410-473-11 | s | INDUCTOR 18UH |
| L25 | 1-412-012-11 | s | INDUCTOR 100UH |
| L26 | 1-412-012-11 | s | INDUCTOR 100UH |
| L28 | 1-410-478-11 | s | INDUCTOR 47UH |
| L30 | 1-410-478-11 | s | INDUCTOR 47UH |
| L31 | 1-410-478-11 | s | INDUCTOR 47uH |
| L33 | 1-410-478-11 | s | INDUCTOR 47uH |
| L402 | 1-410-489-11 | s | INDUCTOR 390UH |
| LPF1 | 1-236-911-11 | s | FILTER, LOW PASS |
| LPF3 | 1-236-911-11 | s | FILTER, LOW PASS |

(YM-MM01(YMD)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q6 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q7 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q8 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q9 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q28 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q29 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q30 | 8-729-119-76 | s | TRANSISTOR 2SA115P |
| Q33 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q44 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q46 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q53 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q001 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q002 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q003 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q004 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q005 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q010 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q011 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q012 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q013 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q015 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q016 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q017 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q018 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q019 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q020 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q021 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q023 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q024 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q025 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q026 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q027 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q031 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q032 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q034 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q035 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q036 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q037 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q038 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q039 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q040 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q041 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q042 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q045 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q047 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q048 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q049 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q050 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q051 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q052 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q054 | 8-729-900-63 | s | TRANSISTOR DTA124ES |
| Q301 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q302 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q303 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q304 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q401 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q402 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q403 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |
| Q404 | 8-729-178-55 | s | TRANSISTOR 2SC2785-E |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(YM-MM01(YMD)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| Q405 | 8-729-119-76 | s | TRANSISTOR 2SA1115P |
| Q406 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q407 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| Q408 | 8-729-900-36 | s | TRANSISTOR DTC124ES |
| R23 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R24 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R42 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R89 | 1-215-442-31 | s | METAL 7.5K 1% 1/4W |
| R001 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R002 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R004 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R005 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R006 | 1-247-883-00 | s | CARBON 150K 5% 1/4W |
| R008 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R009 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R010 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R011 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R012 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R013 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R014 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R016 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R022 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R031 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R032 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R033 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R040 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R041 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R043 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R045 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R047 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R048 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R055 | 1-247-903-00 | s | CARBON 1M 5% 1/4W |
| R059 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R060 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R063 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R065 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R066 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R067 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R074 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R075 | 1-249-441-11 | s | CARBON 100K 5% 1/4W |
| R076 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R077 | 1-249-436-11 | s | CARBON 39K 5% 1/4W |
| R095 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R096 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R099 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R100 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R101 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R102 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R103 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R109 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R110 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R111 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R112 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R118 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R119 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R120 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R121 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R122 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R123 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |

(YM-MM01(YMD)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R124 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R125 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R126 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R127 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R128 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R129 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R130 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R131 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R132 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R133 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R134 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R136 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R139 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R140 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R141 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R142 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R144 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R146 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R147 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R148 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R149 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R150 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R151 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R152 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R153 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R154 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R155 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R156 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R157 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R158 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R159 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R160 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R161 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R162 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R163 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R164 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R165 | 1-247-800-11 | s | CARBON 51 5% 1/4W |
| R166 | 1-247-804-11 | s | CARBON 75 5% 1/4W |
| R167 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R168 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R171 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R172 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R174 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R175 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R176 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R179 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R180 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R181 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R182 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R187 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R188 | 1-249-405-11 | s | CARBON 100 5% 1/4W |
| R191 | 1-249-425-11 | s | CARBON 4.7K 5% 1/4W |
| R192 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R193 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R194 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R197 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R199 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R200 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |
| R201 | 1-249-421-11 | s | CARBON 2.2K 5% 1/4W |

Regarding unlisted capacitors, resistors and inductors, see pages 15-41 through 15-43.

(YM-MM01(YMD)BOARD:MMV802/802-A)

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| R204 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R205 | 1-249-431-11 | s | CARBON 15K 5% 1/4W |
| R206 | 1-249-429-11 | s | CARBON 10K 5% 1/4W |
| R207 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R211 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R213 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R214 | 1-249-413-11 | s | CARBON 470 5% 1/4W |
| R301 | 1-249-411-11 | s | CARBON 330 5% 1/4W |
| R302 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R303 | 1-249-417-11 | s | CARBON 1K 5% 1/4W |
| R309 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R310 | 1-247-807-31 | s | CARBON 100 5% 1/4W |
| R311 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R317 | 1-249-381-11 | s | CARBON 1 5% 1/4W |
| R401 | 1-249-422-11 | s | CARBON 2.7K 5% 1/4W |
| R402 | 1-249-420-11 | s | CARBON 1.8K 5% 1/4W |
| R406 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R407 | 1-247-855-31 | s | CARBON 10K 5% 1/4W |
| R410 | 1-247-847-31 | s | CARBON 4.7k 5% 1/4W |
| R411 | 1-249-419-11 | s | CARBON 1.5k 5% 1/4W |
| R414 | 1-249-417-11 | s | CARBON 1k 5% 1/4W |
| R415 | 1-249-417-11 | s | CARBON 1k 5% 1/4W |
| R416 | 1-247-839-31 | s | CARBON 2.2K 5% 1/4W |
| R418 | 1-247-847-31 | s | CARBON 4.7k 5% 1/4W |
| RB01 | 1-245-033-81 | s | RESISTOR BLOCK 10Kx4 |
| RV01 | 1-237-516-21 | s | RES, VAR 2K |
| RV03 | 1-237-516-21 | s | RES, VAR 2K |
| RV04 | 1-237-518-21 | s | RES, VAR 10K |
| RV05 | 1-237-518-21 | s | RES, VAR 10K |
| RV06 | 1-237-517-21 | s | RES, VAR 5K |
| RV07 | 1-237-517-21 | s | RES, VAR 5K |
| S1 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S2 | 1-553-441-00 | s | SWITCH, TOGGLE |
| S5 | 1-571-146-11 | s | SWITCH, ROTARY |

## SUPPLIED ACCESSORIES

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| 1pc | A-8615-026-A | o | EXTENSION BOARD ASSY |
| 1pc | 1-506-411-21 | s | AC PLUG ADAPTOR, 3P-2P(FOR J MODEL) |
| 1pc | 1-506-421-00 | s | ADAPTOR, PLUG |
| 1pc | 1-534-827-14 | s | CORD, POWER |
| 1pc | 2-993-052-01 | o | SERVICE MANUAL(FOR J MODEL) |
| 1pc | 2-994-164-01 | o | SERVICE MANUAL(FOR U/E MODELS) |
| 1pc | 2-995-498-01 | o | OPERATION MANUAL(FOR J MODEL) |
| 1pc | 2-995-499-01 | o | OPERATION MANUAL(FOR U/E MODELS) |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

## FRAME

| Ref. No. or Q'ty | Part No. | SP | Description |
|---|---|---|---|
| CB1 | 1-532-974-41 | s | CIRCUIT PROTECTOR |
| CB2 | 1-532-974-41 | s | CIRCUIT PROTECTOR |
| CN1 | 1-509-184-31 | s | CONNECTOR, XLR (FOR J MODEL) |
| CN2 | 1-509-184-31 | s | CONNECTOR, XLR (FOR J MODEL) |
| CN3 | 1-509-184-31 | s | CONNECTOR, XLR (FOR J MODEL) |
| CN4 | 1-509-184-31 | s | CONNECTOR, XLR (FOR J MODEL) |
| CN1 | 1-509-176-31 | s | CONNECTOR, XLR (FOR U/E MODELS) |
| CN2 | 1-509-176-31 | s | CONNECTOR, XLR (FOR U/E MODELS) |
| CN3 | 1-509-176-31 | s | CONNECTOR, XLR (FOR U/E MODELS) |
| CN4 | 1-509-176-31 | s | CONNECTOR, XLR (FOR U/E MODELS) |
| CN5 | 1-507-142-XX | o | PIN JACK 2P (MONITOR OUTPUT) |
| CN6 | 1-507-142-XX | o | PIN JACK 2P (MONITOR OUTPUT) |
| CN7 | 1-561-781-21 | s | CONNECTOR, BNC (VIDEO IN) |
| CN8 | 1-561-781-21 | s | CONNECTOR, BNC (VIDEO IN) |
| CN9 | 1-561-781-21 | s | CONNECTOR, BNC (G VIDEO) |
| CN10 | 1-561-781-21 | s | CONNECTOR, BNC (G VIDEO) |
| CN11 | 1-561-781-21 | s | CONNECTOR, BNC (VIDEO OUT) |
| CN12 | 1-561-781-21 | s | CONNECTOR, BNC (TEST IN) |
| CN13 | 1-509-329-00 | s | CONNECTOR (REMOTE 1) |
| CN14 | 1-580-375-11 | s | AC INLET 3P |
| HM1 | 1-548-154-11 | s | HOURS METER |
| HM2 | 1-548-154-11 | s | HOURS METER |
| M1 | 1-541-327-11 | s | FAN MOTOR, DC |
| M2 | 1-541-327-11 | s | FAN MOTOR, DC |
| M3 | 1-541-268-11 | s | MOTOR (SUPPLY REEL MOTOR) |
| M4 | 1-541-268-11 | s | MOTOR (TAKE-UP REEL MOTOR) |
| M5 | 1-541-269-11 | s | MOTOR, GEAR |
| ME1 | 1-520-450-12 | s | LEVEL METER (VU) |
| ME2 | 1-520-450-12 | s | LEVEL METER (VU) |
| PM1 | 1-454-315-00 | s | SOLENOID, S BRAKE |
| PM2 | 1-454-315-00 | s | SOLENOID, T BRAKE |
| PM3 | 1-454-389-11 | s | SOLENOID, PINCH |
| PS1 | 1-413-476-12 | s | SWITCHING REGULATOR (EWS120-12) |
| PS2 | 1-413-477-12 | s | SWITCHING REGULATOR (EWS50-5) |
| PS3 | 1-413-581-11 | s | SWITCHING REGULATOR |
| PS4 | 1-413-581-11 | s | SWITCHING REGULATOR |
| PS5 | 1-413-581-11 | s | SWITCHING REGULATOR |
| R1 | 1-247-104-00 | s | CARBON 75 5% 1/4W |
| R2 | 1-247-104-00 | s | CARBON 75 5% 1/4W |
| RV1 | 1-230-678-11 | s | POTENTIOMETER (SUPPLY) |
| RV2 | 1-230-678-11 | s | POTENTIOMETER (TAKE-UP) |
| S1 | 1-554-066-00 | s | POWER SWITCH |
| S2 | 1-552-078-00 | s | SWITCH (VIDEO TERMINATION) |
| S3 | 1-552-078-00 | s | SWITCH (G VIDEO TERMINATION) |
| S4 | 1-552-078-00 | s | SWITCH (REMOTE SEL) |

Regarding unlisted capacitors, resistors and inductors,
see pages 15-41 through 15-43.

MMV800 (J1, U7, E32)
MMV800-A (J1, U7)
MMV810 (J1, U7, E32)
MMV810-A (J1, U7)
MMV802 (EK1)
MMV802-A (EK1)
2-994-164-01

Sony Magnescale Inc.
**Recorder Products Division**

Printed in Japan
1993.12 08
© 1993
Published by Technical Support Section